transcript.

concerning the terminus
d system of the Pacific

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INFORMATION

CONCERNING

THE TERMINUS

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— OF —

THE PACIFIC COAST.

OAKLAND, CAL:
DAILY TRANSCRIPT BOOK AND JOB PRINTING OFFICE:
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INTRODUCTORY.

Information respecting Oakland and its environs will be interesting to many, not only in California, but abroad. The terminus of a great system of railroads, in rapid course of construction, must command the attention of all who are now, or prospectively, interested in the commerce, or in the securities, of the tributary roads; and this, being the seat of numerous educational establishments, including the State University, parents whose children are here, and those who look forward to sending their children here, will feel interested in acquiring information concerning the place and its surroundings. Thus, the calculating merchant, the shrewd operator, and thousands of careful parents, will be gratified alike in perusing the following pages.

We have endeavored to supply particular, yet concise, information upon every subject relating to this neighborhood, concerning which information is desirable—all of which is respectfully dedicated to the public, by the

OAKLAND DAILY TRANSCRIPT.

THE RAILROAD SYSTEM OF CALIFORNIA.

We publish, herewith, a reliable and interesting map of the railroad system of California which is concentrating at Oakland.

Nominally, there are eight Companies identified with it, but the "Central Pacific," the "California and Oregon," the "Southern Pacific," and the "Humboldt and Colorado," are under the same auspices. The "California Pacific," the "North San Francisco and Humboldt," the "Memphis and El Paso," and the "Terminal," are, severally, distinct organizations. The "San Francisco and San Jose," the "San Francisco and Oakland," and the "Napa," (local roads), have become the property of the great companies.

The map indicates the roads in operation, those in course of construction, etc., etc.

THE CENTRAL PACIFIC

Track commences on the Oakland Water Front at 26½ feet of water (at low tide) where Goat Island makes a lee in "North-westers," and the Alameda Encinal breaks the force of "South-easters." The main trunk runs thence, southerly, to Vallejo's Mill, (see map), from which point it runs eastwardly through Livermore Pass, traversing the Suñol, Amador, Livermore, San Joaquin, and Sacramento valleys, to the Sierra Nevada, passing through Stockton and Sacramento, on the route across the continent. A branch continues southerly from Vallejo's Mill to San Jose, connecting with the line of the Southern Pacific which is now built to Gilroy. We will omit descriptive details of the road and route, inasmuch as the public are familiarized with both, but we will acquaint the reader with the preparations of the company for

TERMINAL FACILITIES.

The Company has secured, in and about Oakland, facilities for the conjunction of railroad and water traffic, unequaled in the world, and unattainable elsewhere on the Pacific coast. It owns, in fee simple forever, an area of seventy acres fronting on the Bay, in the western part of the city, which it purchased as a site for machine-shops, etc. It also owns an area of three hundred and fifty acres on the Water Front, extending from the former tract toward Goat Island, with a frontage of nearly half a mile on Ship Channel. It also owns extensive reservations on the southern bank of the Estuary of San Antonio, and it has secured the right of way for tracks leading to them from the main trunk. It also owns, in proximity to Oakland, ninety acres of land suitable for a car-yard, and other uses; and a large tract of hilly ground whence it can obtain, *ad libitum*, earth and gravel for filling purposes.

The improvements at ship channel are described in an article taken from the *Alta*; but instead of being *completed*, as the *Alta* presumes, they constitute a small part of a grand design. The Company is exempt from the operation of State and Municipal laws respecting wharfage, dockage, and tolls; and it imposes no charges upon vessels receiving or delivering freight.

Infinite credit is due Messrs. Stanford & Co. for having thus early secured the estate and franchises which will afford such invaluable and unbounded terminal facilities; and it is a subject for congratulation to the people of the Coast, at large that, while the railroad system is developing industrial resources with unexampled rapidity, means are assured for the most economical handling of exports and imports. The reflection that the most productive farming, pasture, vineyard, and orchard lands of California and Oregon, are being placed in direct communication with ships floating in the waters of the Pacific, and with the entire railroad system of the United States, is suggestive of an export commerce that will soon turn the balance of trade in our favor and keep our gold at home.

THE CALIFORNIA AND OREGON.

This road which is to concentrate the trade of the north and bring it to the Bay of San Francisco, is being constructed by the C. P. R. R. Company. A valuable land grant is stimulating the work. It is now completed from Sacramento to Tehama—123 miles. While a full force is being employed in its northward extension, the Company is preparing to make the connection between Sacramento and Oakland by the shortest possible route, regardless of expense. The road is to cross the Sacramento river at Van Sickle's Island, making an air line to that point, but the route thence to Oakland is not yet made public. From what we know of the country, it is likely to run through "Willow Pass" to Pacheco, thence to the Walnut Creek House, and thence by one of two passes, in an almost direct line to Oakland. Reference to an article on another page, reproduced from the *Railroad Gazetteer*, will enlighten the reader, and save repetition upon the subject of the "air line road."

THE AIR LINE ROAD FROM SACRAMENTO TO OAKLAND.

We copy the following "Editorial" from the *Railroad Gazetteer* of last November, published by H. S. Crocker & Co., Sacramento.

"On the 27th of September, a survey was commenced under the direction of the management of the C. P. R. R. Company, for the purpose of ascertaining the shortest practicable route for a road between Sacramento and San Francisco. When the intention of building a new road was first publicly announced, there were many who believed that the announcement was to be regarded in the light of a menace against the Vallejo road, to induce a sale of that line to the Central Pacific on easy terms. But the survey has been prosecuted with energy as far as Benicia. Another tentative survey for a route shorter than either of the existing ones, has been commenced. The objective point of the new road has not yet been definitely fixed. The instructions to the surveyors are simply to ascertain "the shortest possible route." In the prosecution of the survey thus far, it has been ascertained that the idea heretofore entertained that it is impracticable to build a road

across tule lands, without incurring enormous expense, is a mistaken one. It is found that at a depth of a few feet below the mud and ooze of the marshes there is a solid sub-stratum of clay, which will afford a firm foundation. The obstacles to the building of a road from Sacramento to San Francisco, shorter than any now existing, are demonstrated to be much less formidable than has been generally supposed; and the prospect is, that the new road will soon be an accomplished fact. The distance by the Western Pacific route is 130 miles; by the Vallejo route 92 miles. The probability is that by the new route it can be reduced to about 75 miles. We have spoken of these surveys as tentative, because no route is fixed, and their whole design is to settle the question as to the shortest route. The second survey, now in progress, is on a line crossing the Sacramento river three and a half miles below the city, and running thence in a direct line near Prairie town to Van Sickle's and Chip's Islands, at the head of Suisun Bay. Crossing the arm of the bay at that point by a draw-bridge, it continues by the most direct route to Oakland. What this direct line will be, must be determined by future surveys."

THE CALIFORNIA PACIFIC.

This road extends from Vallejo to Marysville, with a branch to Sacramento, and traverses a vast area of the finest agricultural lands in the State. The Company is strong. It has bought the road from Napa to Calistoga, and is making preparations to build feeders in various directions which will develop the resources of the Coast counties and concentrate a large business. It is not impossible that it will extend its line northward, into Oregon, and compete with the Central Pacific Railroad Company for the trade of that country. At present, it depends upon steamboats for communication with San Francisco, but the building of the air line road from Sacramento to Oakland, by the Central Pacific Railroad Company, will compel the California Pacific Company to cross the Straits of Carquinez and bring its road to the Oakland water front, on the line projected by the "Terminal Company."

THE SOUTHERN PACIFIC.

The Southern Pacific Company will have several lines west of the Tehachepa Pass. The route through the San Benito Pass to Gilroy, conforms with that filed with the Secretary of the Interior, as a basis for a land grant. The Coast Line, and the Valley Routes, as shown on the map published herewith, are referred to more particularly under their appropriate headings. The hesitation of the Company and the tardiness with which the work has been prosecuted, indicate that grave difficulties are encountered on the line originally designated as the route of the road.

The report of General Wm. Palmer on surveys across the continent, on the 35th parallel of latitude, published in 1868, throws light on this interesting subject.

The surveys were begun at Fort Wallace, in Western Kansas, in July, 1867, by three well organized parties of engineers, under Gen. W. W. Wright. Two additional parties under Col. Wm. H. Greenwood were

subsequently sent out, increasing the corps to five parties comprising about 100 men, besides the military escorts, teamsters, etc. The work was thorough and exhaustive. It extended over the mountainous regions and arid plains, and the contingencies of climate and seasons were investigated.

The line recommended for reaching the Tulare Valley from the east, crosses the Colorado river about 25 miles below Fort Mohave, and traverses the Mohave plains to the eastern foot of the Sierra Nevada. The Tehachepa Pass, about forty miles east and north of Tejon, was found to be the best at which to cross that great range. The elevation of the Summit is 4,008 feet above tide, while at the Donner Lake Pass, where the Central Pacific Railroad crosses the same range, the altitude exceeds 7,000 feet.

From Tehachepa Pass the line descends into Tulare Valley, where the alternative is presented of following this broad and fertile plain for a distance of 250 miles, with an average grade of less than *two* feet to the mile, connecting with the Central Pacific Railroad at the foot of Livermore Pass, or of making the transit of the coast range through one of four other passes, viz: the Pacheco, Panoche, San Benito or Cholame.

Of these, the Panoche was the only pass instrumentally examined, the elevation of which was found to be about 2,200 feet above tide. The grades in 38 miles, from Tulare plain across the Coast Range, were as follows: 7 miles, of 106 feet per mile (ascending westward); 6 miles, of 116 feet per mile (descending westward); and the remaining 25 miles ranging from 50 to 85 feet. (General Palmer's report, p 71).

The elevation of the three other passes, as ascertained by the barometer, are as follows: Pacheco, 1,470 feet; San Benito, 2,750; Cholame, 2,000 feet. The lowest (Pacheco) is described by General Palmer as being the most difficult of all. A peculiarity of the whole range, is the abruptness of the slopes from the Summit to the San Joaquin and Tulare valleys. All the passes are easily approached from the westward, but steep, and in some cases impracticable grades are required to make the descent into the valley. The sand formation of the country is also exceedingly unfavorable for the construction and maintenance of railroads.

It is not known which of the four passes the road will take, but we are glad to say that the building of the road to Gilroy is a foregone conclusion.

THE SOUTHERN PACIFIC COAST ROUTE,

As shown on the map—extending from Gilroy to Los Angeles—was projected by General Rosecrans, and originally designed to connect with the Memphis and El Paso Road, at Fort Yuma. As its name indicates, it now belongs to the Southern (Central) P. R. R. Company. The route traverses a chain of valleys from Gilroy to Santa Barbara which, though not comparable in extent to the valleys further inland, are remarkable for salubrity of climate and fertility of soil. From Santa Barbara to Los Angeles, the country is rough and broken, presenting serious engineering difficulties. The construction of the road is but a question of time. The building of the Memphis and El Paso Road would stimulate the building of this projected coast road, and cause its extension beyond Los Angeles to Fort Yuma, thus making the connection with Oakland and San Francisco. The

old proverb "All roads lead to Rome," has a significant application to our railroad system—terminal expenses and trans-shipping facilities rendering it an economical necessity.

THE CENTRAL PACIFIC SAN JOAQUIN BRANCH

Is one of the most important feeders of the Central Pacific main trunk. It intersects the main trunk, eight miles westerly from Stockton, and runs southerly, twenty miles to a portion of the great San Joaquin Valley, surnamed "Paradise"—one of the most thickly settled, and thickly sown, agricultural districts in California. In proportion to its length, it is perhaps, the most valuable "feeder" which the Comany could have constructed. Undoubtedly, it will be extended to meet the agricultural developments of the San Joaquin and Tulare valleys, and will eventually extend to the southernmost part of the latter, and intersect the main trunk line which *must* take the shortest route from the Tehachepa, to the Livermore Pass, as shown on the map. Thus, the empire valley of the Pacific coast is destined to be traversed by two great roads; and the time will come when both will require numerous branches to accommodate the vast breadth of arable country which the valley embraces.

THE VALLEY ROUTE.

The obstacles encountered in crossing the Sierra Nevada are much less formidable than those encountered in the narrow coast range south of Livermore.

The elevation of the Livermore Pass, through which the Central Pacific is constructed, is 686 feet, and in surmounting it no grade is introduced exceeding fifty-two and eight-tenths feet to the mile. Through any of the other passes abovementioned, the gradients will be steep, the work enormously expensive, and the tributary country comparatively unproductive. On the route through Tulare and San Joaquin valleys, the grades are nearly level, the cost of graduation nominal, and the tributary country one of unbounded agricultural resources.

As to the cost of operating the respective roads, and the time required to make through trips to the Bay of San Francisco, the advantages are altogether with the latter route.

We are unable to state with precision what the difference will be, either of time or distance, between the valley route, via Livermore Pass, and the most practicable route through the coast range south of it; but, after comparing all the information obtainable "outside," we are satisfied that the direct route from the Tehachepa Pass to Oakland or San Francisco, via Livermore's, will be from twenty-five to thirty-five miles shorter than the route by any pass further south; and considering its easier gradients, it will be four or five hours quicker.

THE TERMINAL.

The projected line from Oakland to Vallejo, crossing the Straits of Carquinez, was located by this Company. It also received a grant from the State of the shoal which extends northward from Goat Island. (About three hundred acres).

The line of the road from Oakland to the Straits, is one of the most important ever located. It was designed to extend from the main land, across ship channel, to the above mentioned shoal, but it is not probable that it will ever extend beyond the Oakland water front. At one time, the project of uniting Goat Island with the eastern shore of the Bay, was regarded with much favor by the people of San Francisco and Oakland; but, latterly, it has excited apprehension. The channel is broad and deep. United States Engineers have given free expression to the opinion that its obstruction would ultimately result in diminishing the tidal area of the Bay to an extent that might imperil the shoaling of the bar at the entrance of the harbor. This consideration has revolutionized public opinion; and, whether well founded or not, no experimentation involving a chance so serious to the commerce of the world will ever be permitted. The Goat Island shoal will, therefore, remain for all time to come—good fishing ground.

THE NORTH SAN FRANCISCO AND HUMBOLDT.

The road of this Company, which is now in operation from Donahue to Santa Rosa, (see map), with its projected extensions, and feeders, will form a part of the railroad system of the Coast counties north of the Bay. Westward, from the Napa and Calistoga road, (now owned by the California Pacific Company), the projected branches may belong to the last named company, or to the North San Francisco and Humboldt—it is difficult to say which. Evidently, they belong to one system, and eventually must be subject to one management. The projected line from Donahue, southward, to Saucelito, belongs to the N. S. and H. Company, and the route is not difficult.

MEMPHIS AND EL PASO RAILROAD.

This enterprise was one of the first of the Pacific Railroad projects presented to the public, and it has been prosecuted with varying fortunes for sixteen years. The company was organized in 1854, and received a valuable land grant from the State of Texas. Work was soon after commenced, and about two hundred and fifty miles of the road has been graded and put in operation. The late civil war caused a suspension of the work, and the exhaustion of the South has, until quite recently, prevented its resumption. The friends of the road are earnestly seeking government aid, with every prospect of success. The following extract from an able report of the Senate Committee on Pacific Railroads is an indication of the favor with which the enterprise is viewed in Congress:

"Two additional lines are necessary to avoid the danger of a monopoly certain to be established by one and the only line. With three lines across the Continent, there would be competition that would keep down charges to living rates and fair profit; there would be an effort to make fast time and punctual running; attention would be given to the comfort and safety of passengers; care would be taken of freight, and an unrelaxing struggle would exist to win the favor and patronage of travelers and shippers."

"The South is entitled to a line. The Southern States are in the Union. They have the same rights that the middle States have, or the northern

States. They have the right of access to the Pacific, on their parallels of latitude. They have a right to their share of the trans-continental commerce between Asia and Europe. Norfolk, Charleston, Savannah, Mobile, and New Orleans, can justly complain of a middle States monopoly which pours all of the inter-continental traffic into New York and Philadelphia. The States lately in rebellion are ruined and impoverished. Their peculiar products of cotton, sugar, rice, and tobacco, are of the utmost value to the nation. It is sound public policy to aid the restoration of the annual production of this wealth, which is confined by the laws of climate to the South."

[Since the above was in type we have received the news, by telegraph, that Congress has passed a bill giving a subsidy to this road.]

THE HUMBOLDT AND COLORADO.

The franchise for this projected line of road which extends from the main trunk route of the Southern Pacific, near Fort Mohave, northwesterly to the line of the Central Pacific, connecting with the latter at the foot of the Sierra Nevada, near Carson Valley, belongs to the C. P. R. R. Co.

We are unable to give any information either of the character of the country it traverses, the probabilities of the road being constructed, or the designs of its projectors.

[From the San Francisco Alta California.]

WHAT THE C. P. R. R. CO. HAS BEEN DOING.

[A wharf, 11,000 feet long, running out to a depth of 26½ feet at low tide and 33½ feet at high tide, in a bay like that of San Francisco, having 12 railroad tracks upon its last one thousand feet, a wide carriage way, a spacious passenger depot and railroad offices, warehouses and outside storage for 40,000 tons of grain or other merchandise, three large docks, one of which affords ample space for five of the largest steamers or clippers afloat, is not often seen, even in this age of railroad and engineering wonders. Such a structure has, however, recently been completed by the Central Pacific Railroad Company on the Oakland or easterly side of the Bay of San Francisco.] The extreme end of the main wharf is only three miles from the foot of Second street, where freight is landed in this city, and is less than two and a half miles from the foot of Pacific street, where passengers are set down on this (San Francisco) side.

It would be much more difficult to build such a long wharf with safety on our side of the bay, because the bottom here is a yielding mud; but on the Oakland side there is a hard clay bottom. Another point in favor of Oakland is that the destructive marine wood-eating worm, the *teredo*, is not found there at all. In these facts lie two of the greatest elements of strength and ability to bear great burdens of the new railway wharves across the bay, but only two of them. Nothing has been neglected in the quality of material used, and workmanship employed, to make the wharves the very best ever built in the United States. Experts in the construction

of such work, and army and other engineers who are familiar with like structures in Europe and America, all agree in saying that for engineering skill, mechanical execution, and solidity and excellence of all the material employed, the work is not surpassed by any they ever examined. To make this plain, a few descriptive figures must be given. The piles used, where the water deepens, are 65 feet long, and are 42 to 54 inches in circumference, or as heavy as the main-mast of the largest clipper. They are all of the very best pine, which for lasting qualities under water is one of the very best kinds of wood. The main wharf—for a thousand feet east of the latter there are two wharves, one for Oakland local trains, and one for the regular freight and passenger cars of the through overland road—is 800 feet wide at the extreme or western end, and on it are pens for 500 cattle, two immense warehouses (one 50x500, another 62x600), with the passenger depot, 75x305 in size. The piles were driven into the bottom to a depth of 18 feet. They are set 10 feet apart, parallel with the course of the wharf, and 6 and 7 feet apart across it. In the docks, or slips, there is a double row of spring or fend-off piles, and the regularity and neatness with which they are laid is especially worthy of attention and admiration. Those who will examine the old slips into which the steamers used to run, or who remember those used at the Brooklyn, (N. Y.) ferries, will be able to appreciate the superiority of the Central Pacific slips. The upright piles on the last one thousand feet of the main wharf, are braced with immense cross piles and iron anchors. Trains of heavily loaded freight cars pass over this gigantic structure with as little jar as over solid ground.

The massive new freight ferry-boat of the Central Pacific Company has been completed, and is now running from the Company's extensive wharves at the foot of Second street, in this city, to the Company's wharves and docks above described, on the Oakland side of the Bay. The boat carries 16 loaded cars on each trip, and has, in addition, pens for 300 cattle. She can carry from 1,000 to 1,280 tons each way per day, making the trip across the Bay (3 miles) in forty minutes, when loaded. A railroad now connects the Pacific Mail Company's dock and the Central Pacific wharf on this side, by means of which the cargoes of the China steamers can be immediately discharged into the Central Pacific freight cars, and thus the utmost dispatch will be attained in the shipment of teas, silks, and other fast freight intended for the Atlantic States and Europe.

The Central Pacific Company owns all of the Oakland water-front on which its vast wharves are built. It has its own docks there, capable, as we have shown, of accommodating five of the largest clippers or steamers at a time. In future, all grain, ores, wool, wine, and other merchandise that are to be shipped to Europe or elsewhere, by water, will be discharged directly on shipboard from the cars at the end of the Company's wharf, while all steamers or other craft which come into this port with Oriental cargoes for the Atlantic States, will go direct to the Company's docks and unload into the cars. In this way heavy wharfage tolls, loss of time, double handling and its onerous attendant costs, will be avoided.

In addition to the main overland line, the Central Pacific Company owns the California and Oregon Railroad, which is now completed to Te-

hama, 123 miles above Sacramento, toward Oregon; the San Joaquin Valley Road, which is completed to the Tuolumne River; the San Jose branch from Niles' Station, and the Alameda and Oakland Railroad. The two first named branches of the Central Pacific line run through our two great valleys—the Sacramento and San Joaquin. No country on earth offers a more princely traffic to railroads than do these two vast empire valleys.

In the building of these deep-water wharves and warehouses, the Central Pacific Company has omitted nothing which would tend to facilitate business and reduce expenses on the Company's railroads. Mr. S. S. Montague, the Chief Engineer of the Central Pacific Road, and Mr. Arthur Brown, who built all the Howe-truss bridges on the road, planned and built the great wharves and warehouses which we have described, and the whole work stands as a fresh monument of the engineering talent of the one, and the mechanical skill and ability of the other.

NOTE BY EDITOR TRANSCRIPT.—While according infinite praise to Messrs. Montague and Brown for their genius in designing, no less praise is due to Mr. A. R. Guppy—the accomplished and indefatigable engineer who directed and superintended the work. We will add that the work done is only a small part of that which is designed.

THE STOCKTON AND COPPEROPOLIS

Is a local road, designed to connect Stockton and Copperopolis. Fifteen miles of it have been constructed, and the road is in operation that far.

DISTANCES.

The distances, as stated in the following table, so far as they refer to places on the line of Railroads in operation are, of course, correct. The distances by the projected roads are estimated by engineers who possess more or less knowledge respecting the topographical features of the country. The reader's special attention is called to the difference of distance between Tehachepa Pass to Oakland via. Livermore Pass, and via. the San Benito Pass. The road from Oakland to San Jose is ten miles shorter than from San Francisco to San Jose, and is a quicker route, being almost level.

TABLE OF DISTANCES.

FROM OAKLAND TO	Via Boat and Cal. P. R. R.	Terminal Route via Vallejo	Air Line Route via Sacramento	Via Livermore Pass Route	Via Stockt'n Pacific Valley Route	Via San Jose and San Benito Pass	Via San Jose and Coast Route
San Leandro	.....	.....	.....	6	.....	.....	.....
Decota	.....	.....	.....	19	.....	.....	.....
Niles	.....	.....	.....	22	.....	.....	.....
Pleasanton	.....	.....	.....	34	.....	.....	.....
Livermore	.....	.....	.....	39	.....	.....	.....
Ellis	.....	.....	.....	61	.....	.....	.....
Banta's	.....	.....	.....	66	.....	.....	.....
Stockton	.....	.....	.....	82	.....	.....	.....
Mokelumne	.....	.....	.....	95	.....	.....	.....
Galt	.....	.....	.....	103	.....	.....	.....
McConnell's	.....	.....	.....	111	.....	.....	.....
Elk Grove	.....	.....	.....	114	.....	.....	.....
Florin	.....	.....	.....	121	.....	.....	.....
Brighton	.....	.....	.....	125	.....	.....	.....
Sacramento	91	86	75	130	.....	.....	.....
Santa Rosa	.....	74	.....	.....	.....	.....	.....
Healdsburgh	.....	88	.....	.....	.....	.....	.....
Sonoma	55	50	.....	.....	.....	.....	.....
Vallejo	31	26	.....	.....	.....	.....	.....
Napa	47	42	.....	.....	.....	.....	.....
Calistoga	74	69	.....	.....	.....	.....	.....
Fairfield	51	46	.....	.....	.....	.....	.....
Vacaville	61	56	.....	.....	.....	.....	.....
Dixon	69	64	.....	.....	.....	.....	.....
Davis	77	72	.....	.....	.....	.....	.....
Woodland	86½	.....	.....	.....	.....	.....	.....
Knight's Landing	96	.....	.....	.....	.....	.....	.....
Sutter	.....	.....	.....	.....	.....	.....	.....
Marysville	119	114	.....	.....	.....	.....	.....
Lincoln	119	.....	.....	.....	.....	.....	.....
Sheridan	126	.....	.....	.....	.....	.....	.....
Wheatland	130	.....	.....	.....	.....	.....	.....
Chico	171	166	172	227	.....	.....	.....
Tehama	197	192	198	253	.....	.....	.....
Red Bluff	210	205	211	266	.....	.....	.....
Shasta	247	242	248	303	.....	.....	.....
Yreka	356	351	357	412	.....	.....	.....
Salem, (Oregon)	654	649	655	710	.....	.....	.....
Oregon City	691	686	692	747	.....	.....	.....
Portland	704	699	705	760	.....	.....	.....
Salsbury	107¼	102¼	91¼	146½	.....	.....	.....
Folsom	113¼	108¼	97¼	152¼	.....	.....	.....
White Rock	120¼	115½	104½	159½	.....	.....	.....
Latrobe	128¼	123¼	112¼	167½	.....	.....	.....
Dugan's	134	129	118	173	.....	.....	.....
Shingle Springs	139	134	123	178	.....	.....	.....
Colfax	140	136	174	179	.....	.....	.....
Reno	245	240	229	284	.....	.....	.....
Elko	559	554	543	598	.....	.....	.....
Salt Lake City	650	645	634	689	.....	.....	.....
Ogden	833	828	817	872	.....	.....	.....
Omaha	1865	1860	1849	1904	.....	.....	.....
Chicago	2359	2354	2343	2398	.....	.....	.....
New York	3258	3253	3242	3297	.....	.....	.....
Virginia	266	261	250	305	.....	.....	.....
Carson City	277	272	261	316	.....	.....	.....
Hamilton	679	674	663	718	.....	.....	.....
Fresno	.....	.....	.....	.....	150	.....	.....
Visalia	.....	.....	.....	.....	206	.....	.....
San Jose	.....	.....	.....	.....	.....	40	40
Gilroy	.....	.....	.....	.....	.....	70	70
San Juan	.....	.....	.....	.....	.....	84	.....
San Benito Pass	.....	.....	.....	.....	.....	.....	.....
Tehachepa Pass	.....	.....	.....	.....	320	360	.....
San Antonio	.....	.....	.....	.....	.....	.....	195
San Louis Obispo	.....	.....	.....	.....	.....	.....	228
Santa Inez	.....	.....	.....	.....	.....	.....	306
Santa Barbara	.....	.....	.....	.....	.....	.....	348
San Buenaventura	.....	.....	.....	.....	.....	.....	378
Los Angeles	.....	.....	.....	.....	.....	.....	473
San Pedro	.....	.....	.....	.....	.....	.....	507

THE CITY GOVERNMENT.

MAYOR,.....JOHN B. FELTON.

CITY COUNCIL—N. W. Spaulding, President; E. H. Pardee, J. V. B. Goodrich, A. L. Warner, C. D. Havens, W. J. Gurnett, Q. A. Chase.

BOARD OF EDUCATION—B. T. Martin, President; G. W. Armes, R. E. Cole, Jacob Bacon, W. Van Dyke, L. Hamilton, J. W. Thurman.

CITY CLERK AND TREASURER,.....H. Hillebrand.
CITY MARSHAL AND TAX COLLECTOR,.....Perry Johnson.
POLICE JUDGE,.....A. H. Jayne.
CITY ASSESSOR,.....Joseph M. Dillon.
JUSTICES OF THE PEACE.....James Lentell and G. H. Fogg.
SUPERINTENDENT OF PUBLIC SCHOOLS,.....George Tait.

APPOINTED OFFICERS—T. J. Arnold, City Engineer; H. H. Havens, City Attorney; George Taylor, Pound Master; Miles Doody, Chief Engineer of Fire Department; John B. Felton, N. W. Spaulding and Perry Johnson, Police Commissioners.

POLICE DEPARTMENT.—F. B. Tarbett, Captain of Police; D. H. Rand and E. H. Woolsey, Detectives; W. P. Brant, G. H. Moore, W. H. Summers, John A. Moore, Spencer Pool, H. C. Emmons, Geo. H. Carlton, C. P. McKay, Regular Officers; A. Shorey, A. Wilson, G. F. Blake, G. H. Tilly, Special Officers.

THE PAST, PRESENT AND FUTURE OF OAKLAND.

The centralization of society, the development of industries, and the current of trade, being subjects of general interest, the following synoptic review and brief deductions concerning the locality of Oakland, are appropriate at the present time.

Before Oakland existed, San Francisco had become the great center of population and trade on the North Pacific Coast. Admirably situated for deep-sea and inland water traffic, wealth was attracted to her lap. This stimulated the enterprise of her people, and made her what she is. Sacramento, Stockton, San Jose, Benicia, Vallejo, Sonoma and Petaluma (to say nothing of numerous mountain towns which dot the map of California), all acquired considerable importance before Oakland was heard of.

On New Year's day, 1851, the site of Oakland was only known as a part of the Peralta Rancho. Wild cattle roamed where now, surrounded by all that pertains to modern civilization, more than eleven thousand people are living. The sound of church organs and college bells now reverberates where, then, nothing but the bellowing of animals interrupted the stillness of nature. In the place of the old cattle trails, are railroads and macadamized streets; and where the cattle lazily roamed, we now witness thirty-two daily passenger trains, to say nothing of freight trains, rushing to and fro, propelled by the mighty power of steam. Even the wild flow-

ers that once bedecked the surface of the earth, exist only by sufferance, and a cultivated flora has usurped their place.

Considering that Oakland was but a *second thought* in California; considering the long litigation concerning land titles (now happily settled); considering that one-fourth the area of the city has been held in check for the want of public thoroughfares — the circumstance of her extraordinary development (the statistics of which we publish elsewhere) affords a useful lesson for economists.

Our space is inadequate to a full exposition ot the subject, but we will dwell upon it sufficiently to explain "the milk in the cocoanut;" and to show that more extraordinary results will inevitably succeed those which it has been our privilege to witness.

For several years after the acquisition of California by the United States, men "planted their stakes" on the exclusive basis of the gold and silver crop, and the trade which mining would develop. Moreover, in their calculations concerning prospective developments, ships, steamboats and mule-teams, were relied upon as the only means of transportation. In short, a single branch of industry was the incentive to action, and the Locomotive was not even *expected* within the time popularly allotted for making "a pile."

The Locomotive has not only revolutionized the carrying trade, but, while adding importance to mining industry, it has stimulated agriculture to the front rank, and opened many fields for diversified labor. The gold and silver crop can be "packed" from the mountains to the sea on the backs of mules, and requires not much tonnage to transport it from continent to continent; but the wheat, wine, wool and fruit crops, will annually require hundreds of vessels and thousands of railroad trains.

The statistics, and our remarks elsewhere, will show what the Locomotive has thus far done for Oakland, in connection with educational establishments, and natural advantages of climate, soil and topography. Respecting the present, we will only say, here, that there is no other city in or out of California, the population of which includes so large a proportion of the well educated class.

Referring to the changes produced and being produced, by railroads, the unbiassed reader need only examine the map to perceive that there can be no great terminus at ship channel in the Bay of San Francisco, except at Oakland. An "air line road," so called, will soon be made from Sacramento to Oakland, and engineers are in the field to determine the shortest route.

Plans are almost completed for dredging the bar at the mouth of San Antonio Estuary, and making the Estuary available for commercial purposes. An important consideration in connection with the vast amount of piling already done and the vaster amount in contemplation, is the absence of the *teredo*, or "pile worm." Scientific men attribute this to the fact that the flood tide through "Raccoon Straits" throws the fresh water from the "Sacramento" and "San Joaquin" far over to the east side of the Bay; and the pressure of the flood south of Angel Island, crowds it sufficiently to cause a portion of it to pass between Oakland and Goat Island at every

ebb. The absence of the *teredo* from the Estuary has never been accounted for satisfactorily, but the fact of its non-existence is established.

We have written enough to show that Oakland must eventually become the base of the greater part of the commerce concentrating at the Bay of San Francisco. The situation of Oakland toward San Francisco, is often compared with the situation of Brooklyn toward New York, and comparative deductions are made corresponding with the history of those eastern cities. Had New York been located at the end of a peninsula, jutting from the main land into the Atlantic Ocean; and had Brooklyn been located on the main land opposite, and enjoyed a climate as much more genial as that of Oakland compared with the climate of San Francisco, we opine the result, there, would have been different.

In writing thus about Oakland, it must not be supposed we are predicting the downfall of San Francisco. On the contrary, we believe that San Francisco will prosper and increase. We are looking to the time when the commerce concentrating at the Bay of San Francisco will be five-fold greater than at present. And without expecting Oakland to depopulate her great neighbor, we judge from the forces which are operating that our next annual statistics will make a more wonderful showing than those of the past year.

THE WATER FRONT.

What is known here as "The Water Front of Oakland," consists of the tide lands embraced within the charter line of the city, as shown on the map published herewith. This does not refer to the marsh lands — they being above ordinary, or average high tide. Some characteristics of this water front are remarkable. The bed of the San Antonio Estuary, and of its main current to ship channel, is soft, and offers a great reward, in commercial value, for engineering skill. The flat, from the shore of the bay to ship channel, dips from high water mark, westerly, on a regular incline. It is "hard-pan," and presents an admirable foundation for wharves and other structures.

By the Act incorporating the town of Oakland (passed 1852), the State ceded the water front to the town. By a subsequent Act the town became a city, and the old charter line was confirmed. In 1852, the trustees of the town conveyed the entire water front to an individual for a consideration — *such as it was*. The city authorities repudiated the action of the town Trustees and sought to recover the water front. A prolonged litigation ensued, the merits of which belong to the past. Howsoever much the development of the city was retarded, some of the results have been interesting. One was the preservation of the water front in its integrity, as a whole; and when the trans-continental railroad sought its natural terminus at the Bay of San Francisco, the Genius of Commerce was invoked and she extended an open hand. The city sought and obtained from the Legislature an "enabling-Act," under the provisions of which the litigation was conclu-

ded, and her claims to the water front were exchanged for guarantees of metropolitan portensions. Master minds were employed; grand conceptions were developed; great things have been accomplished; and greater things are in progress.

The water front, excepting the portion of it owned by the railroad company, and a small reservation belonging to the City, is the property of an incorporated company, known as The Oakland Water Front Company, in which the managers of the railroad company are largely interested. An elaborate survey of the entire property has been completed, and the contemplated improvements (an outline of which we publish), as shown on the Company's map, develops one of the greatest enterprises of this, or any other age.

THE ESTUARY OF SAN ANTONIO.

An examination of the maps published in this pamphlet will convey a better general idea of the location of the Estuary, with reference to the Bay, the City of San Francisco, Oakland, the railroad system of the Pacific Coast, and the commerce of the Ocean, than we could convey in words.

On the map of Oakland will be found the outlines of the reservations and rights of way, on the south side of the Estuary, belonging to the Railroad Company; also, the outlines of the improvements projected by the Water Front Company, which harmonize with those of the former.

The reader will observe the soundings marked on the map, from four and a half fathoms water in the Bay, to the head of the Estuary; and the scale will enable him to judge of the area of this most invaluable, land-locked, sheet of water.

Our article upon the Water Front of Oakland explains the situation of the Estuary, in the relation of ownership; and the proposed line of crib-work, as shown on the map — extending from ship-channel, in the Bay, to the head of the Estuary — is the line established by the engineers employed by the Water Front Company, and has been copied, by permission, from an elaborate map which the Company has recently prepared.

As we have stated elsewhere, the plans of the Company develop one of the grandest conceptions of this, or any other age. Recognizing the immutability of the law of economy, it has comprehended the era of railroad commerce, and its relationship to the commerce of the Ocean. It has formed a partnership with Nature, where Nature furnishes nine-tenths of the capital.

The improvement of a portion of the river Clyde, which is now contributary to one of the greatest centers of industry in the world, cost several millions of dollars; but the Estuary of San Antonio, with a capacity for thirteen miles of land-locked wharfing, and a basin to float a fleet of the largest vessels; which is in close alliance with the terminus of a continental railroad system; and, on the the banks of which, locomotives from New York, Philadelphia, and Boston; from Chicago, Cincinnati,

and St. Louis; from New Orleans, Mobile, and Charleston; can stand in waiting to whistle greeting to steamers from Panama, Sydney, and Honolulu; from Astoria, Yokohama, and Japan—this Estuary can be made immensely contributary to the commerce of the world, at an expense of a few hundreds of thousands of dollars.

CLIMATE.

Information respecting climate, being already widely disseminated, the reader will be more interested in general, comparative remarks, than in meteorological details.

Often, the thermometer is a poor index to the comfortable temperature in California. A degree of heat or cold that is not distressing in one locality, is almost insupportable in another. In the dry atmosphere of the mountains, ice forms in the shade, when nobody feels uncomfortably cold; and in the humid atmosphere of the sea-coast, ice melts in a blanket when everybody is chilled to the bone. When the mercury indicates a temperature of 80 degrees, people swelter in a humid atmosphere, and refrigerate in a dry one. Therefore, taking it for granted that information about bodily comfort will be more interesting than minutes concerning the range of the mercury, we shall devote more attention to the former than to the latter.

Taking the climate of San Francisco as a basis for comparison, the mean annual temperature for 17 years, as determined by Dr. H. Gibbons, Sr., of that city, was 56°.4.—the mean temperature of Spring having been 56°.5; Summer, 60°; Autumn, 59°; and Winter, 50°. There were but six days when the mercury reached as high as 90°, and but one day when it fell as low as 25°. During the wet season, the climate of the country surrounding the Bay varies little from that of San Francisco, but during the dry season the variations are remarkable.

The rarefaction of the air, produced by the action of the sun's rays upon the vast surface of the interior country, is the cause of our prevailing summer coast-winds. The air is drawn from the ocean to re-establish the equilibrium (inland) which is destroyed by the heat. The force of the wind depends on the degree of rarefaction that has been produced, and its direction is influenced by intervening obstacles presented by the topographical features of the country.

At some places, the wind and fogs from the ocean sweep over the surface; some places are protected from the force of the wind and the humidity of fogs by the configuration of the mountains, but are often deprived of the sun's rays by the fogs passing overhead; some are protected entirely from the wind, and enjoy an unclouded atmosphere which permits the accumulation of heat; and, again, the gravitating tendency of a cold current from the ocean, often causes it to sweep down the lee slope of the hills, or to dip to the surface of the plain, between two ranges. Hence, the difference in the sensation of heat and cold experienced at places only a

few miles apart. The necessity of substituting cloth wrappings for lawns or linen, within a transit of thirty minutes by boat or rail seems wonderful even when we know the cause.

The summer climate of Oakland and vicinity, is influenced greatly by the configuration of the inner coast range. Immediately back of Oakland, the mountains are high, but there are depressions in the range, both north and south of us, at a distance of several miles. The strongest wind-currents are, of course, drawn through these depressions. We see the fog banks which enter the Golden Gate, take a northerly course, and the fog banks which come through the "Mission Pass," in the southerly part of San Francisco, take a southerly course, across the Bay. The high hills between the central part of San Francisco and the Ocean, often protect that portion of the city from a low fog bank; but, even when the fog bank is high, and envelops San Francisco in its humid embrace, Oakland, almost invariably escapes it. When the fog bank is so dense and heavy, that the depressions in the mountain range, north and south of us, do not accommodate it, and the fog from either direction meets overhead, it is generally lifted from the surface before reaching Oakland, by the upward tendency of the draught which must pass *over* the high mountains behind us. Thus, the most important difference between the climate of San Francisco and Oakland, is attributable to the configuration of the neighboring mountains. The movement of the fog indicates the force and direction of the wind, and every boy who has ever sat on the windward side of a board fence, and enjoyed being out of the wind, will understand the foregoing explanation.

The difference in temperature between Oakland and San Francisco, as indicated by the thermometer, is not so great as many persons suppose; but the difference in the velocity of the wind, and humidity of the atmosphere, is the chief cause of the contrast in comfort and health between the two places.

During the prevailing summer winds, our climate is a mean between that of San Francisco and San Jose. Winds from the north or northwest, which come in a direction nearly parallel with the coast range, are more violent at Oakland than at San Francisco, but they are of rare occurrence.

SOIL AND PRODUCTIONS.

The soil of Oakland is a sandy loam, varying from three to four feet deep. Beyond Oakland, toward the foot hills, it partakes more of the pure loam, or *adobe*. In the northern part of the city (the part toward the foot-hills) it is less sandy than in other places. The apple, pear, plum, cherry, and apricot, are produced in great perfection wheresoever planted. The almond also thrives, and bears plentifully. All kinds of garden vegetables, except the egg-plant and okra, are produced at will, and in great abundance. Raspberries, strawberries and currants, thrive and bear marvelously. Shade and ornamental trees make rapid growth, as the gardens on every side attest. So much has been written about our productions that we were inclined to omit the subject. Indeed, the cultivation of fruits and vegetables

has almost ceased in Oakland. Ornamental trees, shrubs, and flowers, are preferred. The nursery gardens in the vicinity afford an evidence of the public taste for the beautiful in nature. For example, in the "Belle View Nursery" are found forty-two varieties of the Acacia; thirty-three of Eucalyptus; ten known varieties of California Oak, and more than one hundred varieties of Coniferæ — to say nothing of thousands of shrubs, and tens of thousands of flowers.

As a rule, we can gather beautiful bouquets from plants in the open air, every month in the year. In sheltered situations, the fuchia, oliander, geranium, and even the heliotrope, withstand our severest winters. This has been the coldest winter we have experienced for years, yet, the heliotrope is in bloom in many of our gardens.

THE NATURAL SUPPLY OF WATER.

In every part of Oakland, water can be obtained from wells ranging in depth from 14 feet to 35 feet. Taking the neighborhood of Eighth and Center streets as the mean, we find two wells 8 feet 8 inches diameter and 25 feet deep, which yield, when the water is lowest, all that can be pumped by a single-horse-power, working ten hours per day. The proprietor of one informs us that, at times, his well has been taxed at the rate of 10,000 gallons per day. Each of these wells preserved the verdure of extensive lawns during the dryest part of the past summer, and the water in both is soft and pure. A corresponding supply of water is obtainable in every part of Oakland, from wells of the same diameter, but the requisite depth of wells depends on the profile of the ground, and varies as before mentioned.

The force of the wind, although not so uniform, nor so great, in this neighborhood as at San Francisco, is amply sufficient to supply the requirements for both household and garden purposes, if the diameter of the wells and the size of the water-tanks are made to provide against the contingency of an occasional period of calm. Experience has demonstrated that a well of ten feet diameter, with a good wind-mill and pump, and a tank of 15,000 gallons capacity, will, with judicious management, afford water enough for an acre of lawn, besides what is needed for domestic purposes. As a consequence, wind-mills are quite a feature of Oakland.

The quality of ordinary well-water is not uniform. Some of it is hard, but, with rare exceptions, it is all pleasant to drink. Judging from the uniformity of the sub-stratum of indurated sand and clay which underlies the site of Oakland, we are inclined to believe that soft water can be obtained in all parts of the City, if wells are sunk to the proper depth, and the curbing cemented so as to keep out surface water.

The stratum of indurated sand and clay, above mentioned, is impenetrable to surface water, and makes an admirable filter for water percolating through it upwards or laterally. Hence, if the curbing of wells be cemented to a proper depth, and packed with clay on the outside, on a level

with the "hard pan," even the proximity of cess-pools cannot impair the purity of wells.

All efforts, in Oakland, to obtain overflowing artesian wells, have failed, but they have resulted in the next best thing, to wit: inexhaustible wells of soft pure water which comes within a few feet of the surface. We know of four such wells in as many different parts of the City.

The result of experimentation in artesian well-boring indicates the existence of a stratum of pebbles and red gravel, at a depth of less than one hundred feet, through which water percolates freely, under a sufficient pressure to bring it *near* the surface; and, it is money thrown away to sink an artesian well below the stratum of gravel. The water obtained from the latter source is soft and pure.

THE CONTRA COSTA WATER COMPANY.

Furnishes the following statement respecting the water now being supplied from the mountain range back of Oakland:

"The water is collected at a point five miles from the city, near the head of Temescal Creek, where two streams flow constantly into a reservoir. The water-shed supplying the streams, above the reservoir, embraces an area of three thousand acres, too precipitous for cultivation. It is estimated that a rain-fall of twelve inches upon this water-shed will furnish more than one thousand millions of gallons. The reservoir capacity is now small, but is being increased to about two hundred millions of gallons, and can be further increased as occasion requires."

The energy exhibited by the Company is highly commendable. It has already laid about thirty miles of pipe, ranging in size from three to fourteen inches. The estimate of the water supply obtainable from this source, is three millions of gallons per day—sufficient for a population of seventy-five thousand.

According to the circulars issued by the Company, it does not profess, at present, to be able to furnish large supplies for irrigation, or for manufacturing purposes, at cheap rates; but the charges for domestic purposes are the same as in San Francisco.

WATER RESOURCES.

In Amador Valley, thirty miles from Oakland, there is an abundance of soft, pure, water, sufficient to supply a population exceeding half a million. The water basin is the receptacle of six hundred square miles of adjacent country, with its tributary streams.

The water exists in a Tule Lake, partly subterranean, five hundred feet above tide level, surrounded by hundreds of natural wells, which are full to the brim in the dryest seasons. During ordinary wet seasons, these wells overflow and inundate a large surface. The sources that supply the lake are constant—the most important of which are the Los Positas, in the Livermore plain; the Arroyo Mocho, and the Arroyo del Valle, on the east and south; the Arroyo el Alamo, Arroyo de la Tasajera; the los Alamos, and San Cayetao from the north. Most of these are living streams flowing into the Lake. There is but one outlet to this water—at the southwest end of the Lake, debouching from which, the water forms

the Laguna Creek that flows southerly, parallel with the Central Pacific Railroad, six miles to Suñol Valley. There, it forms a junction with the Alameda Creek. The water from the two sources forms a large and beautiful stream which meanders, side by side with the railroad, through the Alameda Cañon, to Vallejo's Mill. (See map). Thence, it flows southwesterly, by the town of Alvarado to the Bay of San Francisco.

By diverting the water, at the junction of the streams, and conveying it along the mountain sides, through the cañon, five miles to Vallejo's Mill; thence, westerly, along the foot hills to Hayward's, the San Lorenzo Creek, a large and rapid stream, could be made tributary. Four miles nearer Oakland is the San Leandro Creek, likewise available as a tributary, and which, alone, would furnish a supply of water for a population of fifty thousand.

The water from these sources would not only afford Oakland an ample supply for generations unborn, but the places on and near the line of approach, including Nile's Station, Decoto, Alvarado, Hayward's, San Leandro, Alameda, and Brooklyn, could reap a similar benefit.

The foot hills present the convenience for conveying the water from the above-mentioned sources to a grand reservoir back of Oakland, one hundred feet above the level of the highest part of the city.

Northwest of the city, there are also sources, whence large supplies are obtainable, the most important of which are the San Pablo Creek, fifteen miles distant, and the Wildcat Creek, near the State University grounds. The water from both could be brought to the grand reservoir.

We are not prepared with estimates of the cost of obtaining this great water supply; but from information given us by skillful engineers who have examined the ground, we can safely say that it would be trifling, in comparison with its importance.

The subject is already attracting the attention of enterprising men and is worthy that of our city authorities.

STREETS.

The aggregate length of all the streets in Oakland, is, in round numbers, one hundred and five miles, of which, thirteen miles have been macadamized and otherwise improved. The streets are generally eighty feet wide, and in most cases cross each other at right angles. Broadway, the principal thoroughfare, is one hundred and ten feet in width, the sidewalks being twenty feet wide. The streets are macadamized with a hard, blue trap rock, of a very superior quality, which is found in great abundance in the immediate vicinity of the City.

The following are streets, and portions of streets, that were graded, macadamized, and curbed, during 1870:

Oak street,	from	Seventh to Twelfth	1,320 ft.
Julia	"	Eighth to Ninth	200 "
Alice	"	Eighth to Fourteenth	1,520 "
Washin'n	"	" "	1,550 "

Clay	"	Eighth to Tenth	480 "
Brush	"	First to Twelfth	2,760 "
Market	"	Seventh to Forty-second	4,420 "
Sixth	"	Castro to Franklin	2,040 "
Seventh	"	Broadway to Franklin	300 "
Ninth	"	Clay to Oak	3,020 "
Tenth	"	Broadway to Alice	1,300 "
Four'nth	"	Broadway to Washington	300 "
Total			19,240

The average cost of macadamizing is estimated at 6¼ cents per square foot. Nineteen thousand two hundred and forty lineal feet of roadway and crossings, converted into square feet gives :

926,840 feet at 6¼ cts	$57,927 50
35,199 feet curbing at 12½ cts	4,233 88
Engineering, advertising and culverts	3,000 00
Total cost	$65,161 38

GRADES.

The City of Oakland is situated on a peninsula extending about one and one-half miles from north to south, and two and one-half miles from east to west. It is bounded on the south and east by San Antonio Creek, on the west by the Bay of San Francisco, and on the north by the charter line, established by Act of the Legislature, in May, 1852. The highest ground in the City is found about midway between the northerly and southerly boundaries, and is thirty-eight feet above the level of high tide. From this water-shed the ground slopes with remarkable uniformity, southerly and easterly to the Estuary, and northerly to a depression near the charter line, and to the salt marsh along the shore of the Bay. Sufficient fall is everywhere obtained for surface drainage, and no serious difficulty is encountered in establishing surface grades.

Something over a year ago, the Common Council appointed a Board of Engineers "to examine the plans and profiles of the City of Oakland, to suggest changes if any they may deem necessary, and to report a plan of street grades, lines, and a system of sewerage for the whole City." The Board was composed of Geo. F. Allardt, Chief Engineer of State Tide Lands, Prof. George Davidson, Assistant U. S. Coast Survey, George E. Gray, Consulting Engineer Central Pacific Railroad Company, Milo Hoadley, President of the late Board of Engineers of San Francisco, and Wm. F. Boardman, late City Engineer of Oakland.

It has seldom been the fortune of any city to obtain the combined services of the same number of Engineers so eminent in their profession and so well qualified in every respect to deal with the difficult problems submitted to this Board.

In due time they presented an elaborate report, and all street improve-

ments and other public works are now executed in accordance with their recommendations. On the uplands, the grades adopted by the Board conform to the natural surface of the ground, so far as is consistent with an efficient system of drainage and sewerage. On the salt marshes and tide lands along the water front, while due regard is had to the future commercial requirements of the City, the grade is not placed so high as to be onerous or oppressive to the property owners.

SEWERS.

It is proposed to construct two main sewers of sufficient capacity to receive the surface and sewer drainage of the entire peninsula. One along or near San Antonio Estuary, and the other through the depression or swale near the charter line on the north. The aggregate length of the two sewers will be about five miles. The greatest rate of descent obtainable is insufficient to carry off ordinary sewage matter without artificial aid, and it is proposed to use the tidal waters retained in Lake Peralta, at the eastern terminus of San Antonio Creek (with which they connect), for the purpose of flushing the sewers at stated intervals. The bottom of the upper end or inlet of either sewer will be placed one foot below mean high tide; the bottom of the outlet at the Bay, one foot below mean low tide—giving a fall of ten and a half feet, which is sufficient to keep the sewers free from all deposits.

Surface water and house sewage will be conveyed to the main sewer, by means of smaller lateral sewers of cement pipes, twelve inches in diameter. Gradients of one in one hundred and fifty can be obtained in the most unfavorable localities.

STONE QUARRIES.

There are inexhaustible supplies of blue-trap rock found in the foothills, within a distance of from two to three miles north-easterly from Oakland. There are now two macadamizing companies engaged in paving the streets of Oakland and Brooklyn, with trap obtained from the above-mentioned source, and they employ about one hundred men. Both companies have machines for crushing the material and graduating its size. The crushing capacity of each is from seven to ten tons per hour. The character of our paving far excels the old-fashioned macadamizing, and the quality of the material, for paving purposes, is not surpassed elsewhere in the world. The cost of paving is mentioned on another page.

Ledges of excellent sand stone are also found in the hills, at a short distance beyond where the blue trap is obtained, and the stone is being used for building purposes.

RAIN TABLE FOR OAKLAND.

YEARS.	'50	'51	'52	'53	'54	'55	'56	'57	'58	'59	'60	'61	'62	'63	'64	'65	'66	'67	'68	'69	'70
August	....	.1	.0	....	....	....	....	....	.1	....	....	....	.1	....	.2	.2	....	....	....	....	....
September	....	1.0	.0	....	....	....	.1	....	....	....	....	....	....	.2	.1	.2	....	1	....	.1	....
October	....	.2	.8	.1	2.1	....	.5	.0	3.4	....	0	....	....	....	.1	.1	....	0	....	.3	....
November	1.3	2.2	5.3	1.4	.4	1.2	2.9	3.0	.3	5 4	2	3.8	.1	2.5	7.6	3.1	2	3.1	2	.1	0.3
December	1.1	7.1	11.9	2.1	.4	5.4	4.0	4.2	4.8	.5	4 8	6.	2.7	1.7	6.9	.6	13.	2	4.3	.2	2.0
YEARS.	'51	'52	'53	'54	'55	'56	'57	'58	'59	60	.61	'62	'63	'64	'65	'66	'67	68	'69	70	'71
January	.6	.6	4.1	4.3	4.5	8.4	2.1	4.4	1.0	.1	1.2	18.1	3.3	1.3	3.9	11.0	6.6	9.6	6.4	.7	2.6
February	.4	.1	1.2	8.4	4.6	.5	8.6	1.3	5.2	.4	2 8	6.1	3.3	.0	.8	1.5	6.2	6.2	4.0	.6	....
March	1.9	6.4	4.8	3.2	4.3	1.6	1.6	3.9	2.5	3.1	3.4	1.7	2.4	1.4	.6	2.6	6.2	6.4	3.2	4.1	....
April	1.1	.2	5.1	3.3	5.6	3.2	....	1 1	.3	.7	2	1.1	2.9	.9	.2	.1	1.1	2.2	2.2	2.7	....
May	.7	.3	.3	.1	2.2	.9	.1	....	2.0	2.6	7	.9	.4	.5	....	1.8	.1	..	.1	.1	....
June	....	....	....	.1	....	....	.1	1	....	....	2	.2	..	....	....	.2	....	.2	....	.4	....
July	....	....	....	....	....	....	....	..	....	.2	....	....	....	....	....	....	....	....	....	....	....
Total	7.1	18.2	33.5	29.0	24.1	21.2	30.0	19.9	19.8	17.1	4.6	38.0	15.2	8.5	21 3	21.2	39.2	40.5	21.6	15.3	....

Arranged according to the seasons, showing the amount in inches of each month during twenty years.

THE PHILOSOPHY OF GRAIN GROWING.—In connection with the annexed rain table, we copy the following from the San Francisco *Evening Bulletin*: "The philosophy of grain growing in California is as follows: If the early rains supply moisture enough to enable the farmers to seed the ground, that is amply sufficient. Enough is better than a feast in this respect, for the farmer can seed more acres. The success of the crop depends on the spring rains; and if the rain-fall in the Spring is sufficient to cause the moisture from above to meet the moisture below, the crop is assured. The moisture rising by capillary attraction is the security; whereas, a dry streak between the moisture above and below, is fatal. Thus far, (January 1st), the present season is comparable to that of 1850-51. The fall of rain in November and December, 1850, was but 2.40, which is a full inch less than the rain-fall during the corresponding months of 1870. January, 1851, yielded only .58; February, .12; but March yielded 6.40; April, .10; and May, .30. The spring rains did not commence in earnest until March, yet what was the result? Mr. Beard, of San Jose Mission, invested $10,000 that season in planting wheat, and in February he would have been glad (as he says) to have sold out for a song. The March rains were sufficient to carry the moisture down to meet the moisture below, and Mr. Beard reaped a larger crop that season than in any following year."

SANITARY AND MORTUARY.

From a sanitary point of view, Oakland stands unrivaled among the cities of the Pacific Slope. This is a bold assertion, nevertheless it is borne out by stubborn facts.

We shall not enumerate, here, the causes which render it so eminently desirable as a place for family residences, but we shall proceed to prove that not another of the principal cities in the State, can claim such exemption from sickness and death, as Oakland. The medical journals contain no mortuary reports for either San Jose, or Oakland, earlier than July of last year, consequently our statistics and comparisons are confined to the six months of 1870, as noted below.

We quote the recent census reports respecting the population of the several cities; and the mortuary statistics of five cities are copied from the report of Dr. Logan, President of the State Board of Health, published in the *San Francisco Medical Journal*, as follows:

NUMBER OF DEATHS.	July.....	August....	September.	October....	November..	December..	Totals.....	Population.
San Francisco	298.	281.	264.	309.	347.	266.	1765.	150,361
Sacramento	31.	31.	29.	50.	46.	33.	220.	16,298
Oakland	7.	10.	7.	13.	9.	12.	58.	11,104
Stockton	23.	14.	16.	17.	16.	18.	104.	10,033
San Jose	16.	14.	21.	16.	10.	24.	101.	9,091

Discarding the decimals, the above exhibit shows, during the six months, one death in San Francisco to about every 86 inhabitants; in Sacramento, one to 74; in Oakland, 1 to 191; in Stockton, one to 96; and in San Jose, one to 90.

It is but fair to deduct from the deaths set down to San Francisco, the number which resulted from suicide, and all causes other than disease; and it should be borne in mind that many persons afflicted with disease contracted elsewhere, visit San Francisco for medical treatment; and that the proportion of these who die, should also be deducted from her mortuary reports, when we are comparing sanitary conditions. Deducting *thirty-two* deaths from her six month's report to cover the former, and *fifteen per cent.* from the remaining 1,733, to compensate the latter, (an excessive allowance in both cases), the result will show nearly *double the number of deaths in San Francisco, in proportion to the population, as have occurred in Oakland.*

The comparison between Oakland and the other cities, is still more striking, as the figures prove; and considering that Oakland is a favorite resort for persons suffering from disease, the result of the above comparison will astonish the people of Oakland little less than persons abroad.

DURATION OF SICKNESS.

Before concluding, we will refer to a collateral fact alike unprecedented in sanitary annals, yet, supported by incontestable evidence. For the purpose of getting information concerning the average duration of

sickness in Oakland and vicinity, we have examined, by permission, the books of two of our most prominent physicians. We took the aggregate of the visits made by the two physicians for the last six months, and divided the sum by the total number of patients visited. The result was an average of *four and one-third* visits to each case. By leaving out of the calculation several desperate cases, the average would be considerably less. The books of the aforesaid physicians will be cheerfully submitted to the inspection of any respectable practitioner who may think we have committed an error.

Is there another city in the United States whose population enjoy such exemption from sickness and death? If there be one, there should be sign-boards erected on every highway and lane approaching it, warning physicians and undertakers of the danger from starvation attending a residence within.

DRIVES AND SCENERY.

There are few places upon earth which are more inviting to those fond of out-door exercise, than Oakland and its vicinity. If it be true—as it unquestionably is—that the Bay of San Francisco is the finest and most picturesque in the world, not even excepting the Bay of Naples, and the magnificent harbor of Rio Janeiro, it is no less true that the site of Oakland affords the most beautiful view of that Bay, and the most delightful of the valleys by which it is environed. Here, the Coast range, generally so abrupt and rocky, recedes gradually into a vale miles in width, and slopes with a gentle declivity to the waters of the Bay, that bathe its borders with the health-inspiring ripples of the Ocean, just visible through the opening of the Golden Gate. Eastward, the summit of Mount Diablo presents the loftiest peak from San Diego to Shasta Butte. Westward, gleams the broad bosom of the Bay, bordered in the distance by the triple hills of San Francisco, the blue summits of the San Bruno Range, and the slumbering valleys of San Mateo. Northward, stretch the fruitful orchards of San Pablo, the green hills of Carquinez, and the fairy islets of Golden Rock, and the Sisters; whilst southward, the old Mission of San Jose looms up in the distance like a glimpse of Aden; and the most fertile of hills, and dales, and plains, commingle in the view, assuring the spectator that no land upon the globe unites in itself blessings more varied or landscapes more enchanting than those which greet the eye from the flower-enameled plain of Alameda.

Here, are no toll-roads to check adventure and tax the pleasure seeker with their oppressive exactions. There are no craggy precipices to climb, or soft morasses to cross; but the country is intersected with highways attesting the genius of McAdam, and leveled like the thoroughfares of Holland. Are you weary of city life, and require the mountain air to invigorate your frame? Scale the summit of Mount Diablo! Are you ill, and need the waters of old Ponce de Leon to reanimate you with the vigor of perpetual youth? Go and bathe in the fountains of the old Mission San Jose! Are you fond of sport? Shoulder your gun and gather quail from the foothills, or rig your

fishing tackle and bait for smelt or silver-fins, for trout or perch, off the end of our piers, or in the shady nooks of the San Leandro! Are you a lover of nature? Mount your horse and thread the grounds of the State University! Visit the gems of the foothill farms! Climb the gentle acclivities of the coast range! And, turning suddenly in the saddle, cast your eye on the slumbering landscape at your feet! Where upon the broad earth can your gaze meet with so enchanting a spectacle? Vineyard, orchard, and garden; fountain, bay, and ocean; plain, meadow, and mountain, blend in a unison so perfect that you feel there can be no spot where nature presents greater inducements for homes, than the gorgeous queen of the valleys, the beautiful bride of the Bay, the flourishing city of Oakland.

WHAT NATURE HAS DONE.

She has given us a climate unsurpassed in the world—preserving the health of those who are not afflicted, and imparting health to those who are.

She has given us a soil, in harmony with the climate, which affords sustenance to nearly every description of plants and trees.

She has given us a site for a city which, comparatively speaking, is already graded; she has ornamented it with a profusion of majestic oaks, and sent larks and linnets to perch upon their boughs and delight us with their warbling.

She has given us a never-failing supply of pure water within a few feet of the surface, and she guards it from contamination, by a formation of sand and clay, impervious to surface water.

She has placed, within a convenient distance, inexhaustible supplies of pure water which may be conducted, by gravitation alone, to the tops of our highest buildings.

She has placed, close at hand, ledges of stone admirably adapted to building and macadamizing.

She has surrounded us with scenery which delights the eye, expands the mind, and animates the spirits.

She has given us, in common with San Francisco, one of the finest harbors in the world; and she has banished the *teredo* from our shores.

She has given us a solid foundation for buildings and wharves, from high water mark to ship channel; and she deposits her mud elsewhere.

She has made depressions in the mountain ranges which lead the locomotive to our wharves to meet the commerce of the ocean; and has ordained Oakland as the great terminus of the railroad system of the Pacific Coast.

STREET RAILROADS.

The contour of Oakland and the surrounding country, being almost level, or gently undulating, is peculiarly well adapted to horse-railroad enterprises. There is one already in successful operation, extending from

the foot of Broadway to Telegraph Avenue, and thence to Temescal bridge. Its franchise extends to the State University grounds. Its present track is three miles in length, and the cars and horses used by the road Company compare favorably with those used in San Francisco. The success of the enterprise has stimulated the organization of other horse-railroad companies, one of the most important of which is the Fruit Vale and University Company, designed to connect Fruit Vale and Brooklyn with the University grounds. The Oakland and San Pablo Avenue Company, and the San Pablo, Webster Street and Alameda Company, have also located routes of great importance; and the roads already projected will form, when completed, a cordon of iron rails which will afford the people of Oakland and the neighboring towns, cheap and constant facilities of communication with each other, and with the State University.

OAKLAND GAS LIGHT COMPANY.

This Company has fourteen miles of "mains" already laid in Oakland, besides extensions to and about the town of Brooklyn. The present capacity of the works is one hundred thousand feet per day, and the quality of the gas is not surpassed by that of any other company in California. There are few, if any, cities in the United States of an equal number of inhabitants, wherein such an extent of gas mains have been laid. The quantity of gas consumed is not commensurate with the extent of the mains, but that militates against the Company, and in favor of property-owners, and of those who desire to build houses and to enjoy the luxury of gas light.

LAND TITLES.

The stability of the title to real estate in Oakland and Brooklyn townships recommends it strongly for investment and homestead purposes. It is a fundamental principle in English and Spanish law, derived from the maxims of the feudal tenures, that the King was the original proprietor of all land in the Kingdom, and of all territories acquired (like California) by discovery and colonization, and that he was the only and true source of title. In the United States, the same principle has been adopted. All valid individual titles to land in California are, therefore, derived from the government of the United States, and the State of California (from the latter subordinately and only for land covered by tide-water); or, from the Spanish Crown, prior to the 28th of September, 1821, the day recognized in law as the date of the independence of the Mexican nation; or, from the government of Mexico up to the 7th July, 1846, when the United States took possession of this State, which was subsequently ceded to them by the treaty of Guadalupe Hidalgo, Feb. 2d, 1848—by which treaty all governmental grants previously made were confirmed.

Thus, was the title to the lands in the City of Oakland, and the town of Brooklyn, together with that of the surrounding country, comprising about

twenty-five thousand acres, derived from the Mexican Government, through a grant made in 1820 to Don Luis Peralta, in recognition of his meritorious services in the conquest of California.

Peralta divided his rancho, first by actual partition in 1846, and afterwards in 1851 by will, between his four sons, Jose Domingo, Vicente, Antonio and Ignacio, whose titles have since been recognized and confirmed by the United States Courts. Efforts were made to assail and cloud fractional parts of the title of these brothers, but the Courts have rejected and declared invalid all adverse claims.

No real estate can be held under a better title than that which is derived from the brothers Peralta.

THE PRICE OF HOMESTEAD SITES.

In all places where people most do congregate, the active competition for the possession of land, causes the value of real estate to rise with the increase of inhabitants. Thus, has property in San Francisco become very valuable, mostly in the eastern portion of the city, specially devoted to business in its various branches; thence, southerly over flat lands; and westerly, over hills and through dales, in all inhabitable directions, where year by year dwellings multiply.

But this increase in value is not confined to the limits of the metropolis. It spreads for miles over neighboring localities which are attractive for family residences, as they are brought nearer by means of increasing facilities for travel.

It is so with the surroundings of New York, and all large cities; and the history of the last few years plainly indicates that the same causes are producing like results here. The attention of those whose interests or preferences have called them to San Francisco, has, of late years, been more and more directed, for climatic and other reasons, towards suburban retreats, chiefly in the direction of Oakland and vicinity. Values have consequently increased, but apparently not in proportion to the progress in population and improvements, nor to the prospective importance of the locality.

The object of this article is to invite attention to the very considerable difference which still exists in the value of residence property in San Francisco, as compared with that in Oakland and Brooklyn. Various considerations may lead people to prefer a residence outside of the great city to one within, and not the least among these is the larger quantity of ground obtainable for the same amount of money.

For this purpose it will be useful to compare the value of residence property in the places named, for lots of different depths, on streets of different widths — items which enter largely into calculations of value.

It is evident that no very precise comparison of one locality with another can be made, as no two localities can be said to offer exactly the same advantages; nor, owing to the diversity of individual appreciation, are they susceptible of being judged by the same standard.

The information herewith submitted, has been obtained from reliable sources. Opinions on values will always differ more or less, but the valuations have been carefully made, though necessarily in a general way, and are intended to represent prices which can be realized when opportunities for sales occur. All quotations are stated per foot frontage for inside lots—corner lots being worth from ten to thirty per cent. more.

In San Francisco, on streets 82½ feet wide, like Mission, Howard, and Folsom streets, property ranges, for lots 80 to 90 feet deep, from Fourth to Seventh, at $125 to $200 per foot frontage; and lots beyond Seventh, to Fourteenth, at $75 to $100; further southerly, to Twentieth street, $60 to $75, and on Valencia, $80 to $90; on Van Ness Avenue, $120 to $150; on the other streets, in the Hayes and Beideman tracts, about 69 feet wide, lots 120 feet deep are worth $60 to $100 per front foot.

In Oakland, east from Market street, lots 100 feet deep on all the 80 feet streets north of Railroad Avenue or Seventh street, sell for $27 50 to $50 per foot frontage; and south of Seventh street, at $22 50 to $30. On Adeline and Market streets, both 80 feet wide, lots 125 and 130 feet deep, between Seventh and Twenty-second streets, bring $27 50 to $45 per front foot.

Again, in San Francisco, on Stevenson, Jessie, Minna, Natoma and similar streets, only 35 feet wide, lots 70 to 80 feet deep, between Fourth and Seventh streets, bring readily $50 to $60 per foot frontage, and from Seventh to Tenth, about $40.

Oakland and Brooklyn have no streets of such limited width—the narrowest measuring 60 feet. On the 60 feet streets in Oakland, property sells as follows: north of Seventh, to Fourteenth, between Market and Adeline, $30 per foot frontage, 125 feet deep; from Fourteenth to Eighteenth, between Market and Adeline, 125 feet deep, $16 to $22 50; and between Kirkham and Peralta, north of Fourteenth street, 104 feet deep, $12 to $20; between Peralta, Pine, Eighth and Twelfth streets, near the Point, lots 135 feet deep, $22 50 to $25; between Adeline and Peralta, Seventh and Fourteenth, lots 125 feet deep, $20 to 22 50; at the Point, both north and south of Seventh street, lots 100 feet deep, $22 50 to $30; north of Twenty-second street and west of the San Pablo Road, lots 125 feet deep, $10; east of the said road, lots 110 feet deep, $15 to $20 per foot frontage.

In Brooklyn, property on 60 feet streets is worth: West of Walker and south of Humbert streets, lots 150 feet deep, $10 to $15 per foot frontage; north of Hepburn street, lots 140 to 150 feet deep, $5 to $10.

The reader will bear in mind that reference has been made solely to residence property, and our allusions to San Francisco values do not refer to certain favored localities where even residence property is held as high as $300 per front foot. Respecting business property, those who desire to purchase, may seek information for themselves. It is hardly necessary to say that business property is, at present, far more valuable in San Francisco than in Oakland.

BUILDING IMPROVEMENTS DURING 1870.

The tabular statement of building improvements in this city for the year 1870, published in the OAKLAND DAILY TRANSCRIPT, January 2, 1871, gives the number of buildings erected, during the year, at six hundred and fifteen, and their cost at $1,405,150. These figures are given us by the architects who planned, and the owners who constructed the buildings, and cannot, therefore, be far out of the way.

COST OF BUILDING.

The cost of building materials and mechanical labor are, owing to our proximity to San Francisco, the same here as in that city. To illustrate the equilibrium of prices in this industry, we note the fact that Oakland architects and mechanics are called upon by San Francisco, and those of the latter city are frequently employed upon buildings here. Again: our planing mills are in constant receipt of orders for house-work from, not only neighboring inland towns, but from the metropolis. There are three extensive lumber yards, and three planing mills in Oakland.

MANUFACTURING PROSPECTS.

The map showing the outlines of the contemplated improvements of the Water Front Company, is given to the public, in this publication, for the first time. The most important features of the project are the dredging of the Bar at the mouth of the San Antonio Estuary, the cribbing of both banks from ship channel to the head of the southerly arm (a distance of over five miles) and the widening and deepening of the channel where necessary.

There will be a wide side-walk (no street) between the edge of the cribbing and the first tier of blocks on the north bank of the channel, from its mouth to Broadway street. But a wide street is provided for in the rear of the tier of blocks, to accommodate as many rail tracks as may be needed. These tracks will lead to the main trunk of the C. P. R. R. Thus, a manufacturing establishment situated upon any of the aforesaid blocks will be able to receive or deliver freight at "ship's tackles," at the front doors, and to load or unload cars at the back doors. If desirable, "turn-outs" can be laid from the street to the edge of the cribbing—passing through the building—and it requires no gift of prophecy to predict that, as the projected improvements are made, the heavy manufacturing business of the Bay counties will concentrate where such facilities for economizing are provided; and there is not another place about the Bay where it is possible to provide them. The perusal of our remarks under the head of "The Estuary of San Antonio" will give the reader additional light concerning the vast prospective importance of the manufacturing interests of Oakland.

THE UNIVERSITY OF CALIFORNIA.

The University of California was created with the view of carrying the public educational system of the State up to its highest expression, in an institution which should realize the broadest, freest, most liberal, and most advanced ideas of University education. It receives its support from the extensive land-grants made by the General Government to the State of California, for the establishment of Agricultural and Mechanic Arts Colleges—a foundation which has been enlarged by a liberal appropriation from the State Legislature. The University, accordingly, is a State institution, and as such, must be of equal interest to the people of every section of California. Yet the sphere of its activity is not bounded by the lines of our own State, for its register shows that it already draws from every State and Territory of the Pacific Coast; from Mexico, from South America, and from the islands of the sea—a fact which strikingly illustrates the scope of the benefits diffused by our young but progressive State.

The Act creating the University of California was passed by the State Legislature at the session of 1867-8. It placed the supreme control of the institution in a Board of Regents, which is at present composed of the following gentlemen, of well-known culture, public spirit and business ability:

Ex Officio Regents.

His Excellency HENRY H. HAIGHT, Governor.
His Honor WILLIAM HOLDEN, Lieutenant-Governor.
Hon. GEORGE H. ROGERS, Speaker of the Assembly.
Hon. O. P. FITZGERALD, D. D., State Superin'dt of Public Instruction.
Hon. CHARLES F. REED, President of the State Agricultural Society.
A. S. HALLIDIE, Esq., President of the Mechanics' Institute of San Francisco.

Appointed Regents.

JOHN T. DOYLE, Esq.
Hon. RICHARD P. HAMMOND,
Hon. JOHN W. DWINELLE,
Hon. HORATIO STEBBINS, D. D.,
Hon. LAWRENCE ARCHER,
Hon. WILLIAM WATT,
Hon. SAMUEL B. McKEE,
Hon. SAMUEL MERRITT, M. D.

Honorary Regents.*

Hon. EDWARD TOMPKINS,
J. MORA MOSS, Esq.,
S. F. BUTTERWORTH, Esq.,
Hon. JOHN S. HAGER,
A. J. BOWIE, M. D.,
Wm. C. RALSTON, Esq.,
Hon. JOHN B. FELTON,
LOUIS SACHS, Esq.

Officers of the Board of Regents.

His Excellency H. H. HAIGHT, President.
ANDREW J. MOULDER, Esq., Secretary.
WILLIAM C. RALSTON, Treasurer.

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* The term Honorary, applied to these Regents, indicates only the mode of their election, which is made by the Ex-officio and Appointed Regents. Every Regent, however appointed, is a voting, legislative, and executive member of the Board.

The University went into operation September 23, 1869, with Professors John and Joseph LeConte, Fisher, Swinton, Carr, Kellogg, Welcker

Pioda, Santi and Ogilby, as the faculty. Prof. John LeConte was appointed acting-President, by the Regents, and he continued in this position till the close of the scholastic year ending with July, 1870. The second year of the University began September 23, 1870. In the intervening vacation, the Board of Regents had elected to the Presidency, Prof. Henry Durant. The Register gives the following names, as composing the Faculty and Officers of the University:

HENRY DURANT, A. M., President, and Professor of Mental and Moral Philosophy.

STEPHEN J. FIELD, LL. D., Non-Resident Professor of Law.

JOHN LECONTE, M. D., Professor of Physics, Industrial Mechanics, and Physiology.

JOSEPH LECONTE, M. D., Professor of Geology, Natural History, and Botany.

MARTIN KELLOGG, A. M., Professor of Ancient Languages.

GEN. W. T. WELCKER, Professor of Mathematics.

PAUL PIODA, Professor of Modern Languages.

EZRA S. CARR, M. D., Professor of Agriculture, Chemistry, Agricultural and Applied Chemistry, and Horticulture.

WILLIAM SWINTON, A. M., Professor of the English Language and Literature; Rhetoric, Logic and History.

THOMAS BENNETT, M. D., Professor of the Principles and Practice of Medicine.

JAMES BLAKE, M. D., Professor of Midwifery.

J. C. SHORB, M. D., Professor of Clinical Medicine.

J. D. B. STILLMAN, M. D., Professor of Materia Medica.

C. F. BUCKLEY, M. D., Professor of Anatomy.

GEORGE DAVIDSON, A. M., [Assistant U. S. Coast Survey]. Non-Resident Professor of Astronomy and Geodesy.

COL. FRANK SOULE, Assistant Professor of Mathematics.

ROBERT E. OGILBY, Instructor in Drawing.

GEORGE TAIT, A. M., Assistant Professor of Ancient Languages.

PROFESSOR WILLIAM SWINTON, Librarian.

It is believed that the history of education in the United States presents a no more signal success, in the founding of a high institution of learning, than that which has attended the University of California. Opening with about forty students at the beginning of the first year, it has now on its catalogue the names of seven hundred and ninety members of the severa Colleges and of the Preparatory Department.

The University consists of five distinct and independent Colleges, viz:—Four Colleges of Arts, and one College of Letters, as follows:

1. A State College of Agriculture,
2. A State College of Mechanic Arts,
3. A State College of Mines,
4. A State College of Civil Engineering,

} *Colleges of Arts.*

5. A State College of Letters.

The full course of instruction in each College, embraces all appropriate studies, and continues for at least four years. Each College confers

a proper degree, at the end of the course, upon such students as are found, upon examination, to be proficient therein.

Partial courses are organized in each of the Colleges for students "who may not desire to pursue a full course therein."

Besides the students pursuing the regular courses, any resident of California, of approved moral character, has the right to enter himself in the University as a student at large, and receive tuition in any branch or branches of instruction, at the time when the same are given in the regular course, provided his preparatory studies have been such as to qualify him to pursue the selected branches; and provided, further, he selects a sufficient number of branches—the number being designated by the Faculty.

Measures have been taken to carry out the provisions of the Act creating the University, in respect to military instruction and discipline. Acting under directions from the Board of Regents, Professor Welcker and Assistant Professor Soule, graduates of the West Point Academy, have organized the battalion of the University Cadets. All able-bodied male students of the University are required to attend the military exercises. The utility of such instruction and discipline is generally conceded.

The University already possesses excellent apparatus, recently procured from Europe, and valued at over $30,000, for the use of the Physical, Chemical, and other Scientific Departments. There is also a Cabinet, rich in specimens collected from various parts of the State, and the Legislature has specially provided that the ample collections of the State Geological Survey shall be devoted to the uses of the University.

By an Act of the Legislature, passed at its last session, five Scholarships were established, each of the value of three hundred dollars a year for four years, to be competed for by candidates for the Fourth Class. It is expected and hoped, that the number of scholarships will be increased by private liberality.

From the foregoing statements (which we compile from the "Register") it will be seen that the University of California, in the second year of its existence, already offers ample facilities for a thorough education. It has a large and competent faculty of instruction, and costly and complete apparatus. It opens its doors, without charge, to all of both sexes, who are qualified to profit by its advantages. The enlightened founders of the University of California laid its basis upon live and modern ideas of education. It is wholly free from ancient scholastic precedents and routine. It recognizes the equal dignity and worth of all knowledges and arts, and hospitably affords opportunities to students desirous of pursuing any specialty. Those who are enrolled as "students at large" can select their own studies, and attend the exercises of any of the classes. There are still shorter courses for those who can stay but a single term, or attend but a single course of lectures. If any one wishes to study some practical branch of learning—for example, metallurgy or agricultural chemistry—he will find here, every facility for its prosecution. In fine, it is a *University* in the full scope and meaning of the term.

The University, while awaiting the erection of college edifices upon its extensive and beautiful domain, at Berkeley, (near Oakland), is occupying

the old College of California building, in this city, where it is probable the institution will remain for a considerable time to come. The striking exhibit elsewhere made of the healthfulness of Oakland, shows that in this respect, it could not have been more fortunately located.

PREPARATORY DEPARTMENT OF THE UNIVERSITY.

Our sketch of the University would be far from complete, did we fail to notice the recently created training school or "Preparatory Department."

The necessity of some training school which should serve as a link between the public school system and the University, was felt soon after the latter went into operation. It was at first sought to supply this link by the organization of a Fifth Class. This was begun at the beginning of the present scholastic year in September last. The experiment was a complete success, very large numbers of pupils of both sexes having joined the "Fifth Class." Indeed, so unexpected was the increase of the class, that it was found necessary to purchase the Brayton school property, in order to afford accommodations for the students presenting themselves. At the commencement of the present term (January 5, 1871), this class, while still retaining its distinctive name, was greatly enlarged in its scope by dividing it into various grades, thus establishing a real training school or preparatory department. This department of the institution was put under the direction of Mr. George Tait, aided by an adequate corps of excellent teachers. We believe the department now numbers (day scholars and boarders) upwards of two hundred. It shows all the signs of enlarging and lasting usefulness.

PRIVATE SCHOOLS, SEMINARIES AND ACADEMIES.

There are numerous private institutions of learning in Alameda county, but our limited space prevents us from according more than a brief mention to each.

THE MILLS' INSTITUTE.—The largest and most expensively constructed, and one which, when completed, will doubtless occupy a foremost position among our female educational institutions, is the Mills' Seminary, located in a beautiful glen at the head of Brooklyn Avenue, half a mile from the Brooklyn station of the Central Pacific Railroad, and about four miles distant from Oakland. The foundation for this noble structure was laid about one year ago, and it is thought the Seminary will be ready for occupation in May next. The contract price was sixty thousand dollars, but that amount has already been expended, and it is now estimated that the total cost of its erection will be near one hundred thousand dollars.

FEMALE COLLEGE OF THE PACIFIC, OAKLAND.—This College lies on the first rise of ground from the city of Oakland, and is directly in front of the Golden Gate. It is one mile from Oakland, and forty-five minutes rom San Francisco by cars and steamer. Its location is such as not only

to give to the eye in every direction, a scene of unsurpassed beauty—of cities, villages, mountains, plains—the whole Bay of San Francisco, and the ocean, but to secure the unbroken health which has characterized the school during the seven years of its existence. The Faculty is as follows: Rev. E. B. Walsworth, D. D., President; D. P. Sackett, A. M., Mathematics, Latin and Natural Sciences; Miss M. K. Culberston, English Literature, Logic, Anatomy and Physiology; Miss Emma Janes, History, Rhetoric and Mathematics; Mrs. R. A. Lawrence, Elocution, Gymnastics and Book-keeping; Prof. G. Schulte, Modern Languages; E. Steinle, Piano Instruction; Mrs. S. W. Little, Vocal Instruction; J. B. Wandesforde, Oil Painting and Drawing; Mons. M. Y. Ferrer, Guitar; Mrs. W. E. Rust, Primary Department.

Oakland Seminary.—Washington street, between Eleventh and Twelfth. Founded November 8, 1858. Mrs. G. M. Blake, Principal; Chas. Ames Spencer, Ph. D.; Miss Aiken, Collegiate Department; Mrs. Mooklar, and Miss Hillebrand, Intermediate Department; Miss Jordan, Kindergarten; Mr. Wandesforde, Painting and Drawing; Mr. Holzhauer, Instumental Music; Mr. Havell, Vocal Music; Mr. Ferrar, Guitar.

Oakland Military Academy.—This institution combines military discipline and scholastic instruction. Rev. D. McClure is the proprieto and principal of the Academy, which opened January 9, 1865. The buildings are commodious, and handsomely situated on a rise of ground known as Academy Hill. There are two Departments in the Academy—Preparatory and Academic. The scholars wear an appropriate uniform, and are termed Cadets. The Academy is furnished with muskets and other equipments, and has a large armory. The institution has at present about one hundred and nine boarding scholars and thirteen day scholars, and is much esteemed for the excellence of its discipline.

Linden Lane Boarding School.—Linden Lane, near Telegraph road, about two miles from Broadway station. Boys are here prepared for the University or College; or, receive such a practical education as will fit them for active business life. Number of scholars limited to sixteen. The school is under the charge of D. C. Stone, A. M.

The Convent School.—The Convent of Our Lady of the Sacred Heart is a girls' day and boarding school. It was dedicated in the summer of 1868. It is charmingly located on an elevation at the head of Lake Peralta, and commands a fine view of the surrounding country. The Convent School has at present sixty-one boarding scholars and fifty-two day scholars, and is taught by the Sisters, who came from Canada. The Convent is in charge of St. Mary's Catholic Church, and was built through the energetic efforts of Rev. Father King. The building cost upward of twenty thousand dollars.

St. Joseph's Academy.—This school is located at the corner of Fifth and Jackson streets, and is conducted by the Christian Brothers—Brother Gustavus, Principal; assisted by Brothers Alexander, Baptist, and Thomas. Opened July 25, 1870, with 45 pupils, and numbered 85 at the close of its last term, December 24, 1870. The pupils are all boys.

MADAME BOULLET'S SCHOOL.—Among the private schools of Oakland, is a modest little establishment, at the corner of Franklin and Fifth streets, which has been conducted for many years by Madame and Mademoiselle Boullet—Parisian French ladies. The boarders are limited to ten or twelve little girls, and the number of day scholars is also limited. Notwithstanding the unpretending character of the school, it has long been justly celebrated for the parental care exercised over the pupils, and the remarkable proficiency the pupils acquire in the French language.

ALAMEDA ACADEMY.—The first term of this institution commenced January 2, 1871. Prof. J. T. Doyen, Principal.

THE SISTERS' SCHOOL.—Eighth street, between Jefferson and Grove. Sisters Mary Augustine and Mary Prescille, teachers. This school has seventy day scholars, all girls.

J. C. HYDE'S DAY AND BOARDING SCHOOL.—Corner of Sixth and Harrison. Mrs. Hyde, assistant. There are twenty scholars in attendance.

FRENCH AND ENGLISH SCHOOL.—Madame D'Heirry's French and English boarding and day school is located on Seventh street, between Grove and Castro.

BROOKLYN PRIVATE SCHOOL.—Besides the public schools in Brooklyn (noticed elsewhere), there is an excellent private school, kept by Mrs True. Twenty-six girls and six boys attend.

MISS MARY BARNES' DAY SCHOOL.—Corner Sixth and Clay streets; has fifty scholars.

MRS. FOGG'S DAY SCHOOL.—Corner of Second and Franklin streets; has twelve scholars.

PUBLIC SCHOOLS.

The report of W. F. B. Lynch, County Superintendent of Public Schools, in June last, gave the number of children, between fifteen and five years of age in the county, at 5,436, of which 3,269 were enrolled on the registers of the various districts. We have later reports of the Oakland schools. Upon application to the several principals, we find that the attendance now aggregates 1,034. Aside from Oakland, there are sixty-six public schools in the county, giving employment to fifty-one teachers. Brooklyn has a school for colored children—the only one in the county—which is attended by twelve pupils. There are five large and commodious school buildings in Oakland. The size and accommodations of each may be readily inferred from their cost, which is given below. Besides these there is now in course of erection a High School building, on the corner of Market and Twelfth streets, which, when completed, will have cost $27,000. Our school authorities have also invested in real estate, in various parts of the city, for future school building purposes, since July last, $21,631. These purchases were wisely made, for other buildings will soon be urgently

needed. Following are the schools, their location, cost of buildings, names of principals, and number of teachers and pupils :

LAFAYETTE GRAMMAR SCHOOL.—Corner of Twelfth and Jefferson streets ; cost of building, $17,000; Principal, J. B. McCheseney ; number of teachers, 11 ; male pupils, 160 ; female pupils, 190.

PRESCOTT GRAMMAR SCHOOL.—Seward street ; cost of building, $10,000; Principal, A. W. Brodt ; number of teachers, 6 ; male pupils, 112 : female pupils, 84.

PRIMARY No. 1.—Corner Twelfth and Grove streets ; cost of building, $1,700 ; Principal, Mrs. R. Phelps ; number of teachers, three ; male pupils, 78 ; female pupils, 82.

PRIMARY No. 2.—Corner Sixth and Alice streets ; cost of building, $1,200 ; Principal, Miss F. Brigham ; number of teachers, 3 ; male pupils, 80 ; female pupils, 61.

PRIMARY No. 3.—Corner of Fourth and Grove streets ; cost of building, $1,200 ; Principal, Miss H. Jackson ; number of teachers, 4 ; male pupils, 99 ; female pupils, 88.

CHURCHES.

FIRST PRESBYTERIAN.—Corner Broadway and Thirteenth street, organized in 1852. Pastor, Rev. D. W. Poor. Elders—Samuel Percy, Elijah Bigelow, James J. Gardiner, Wm. C. Dodge, G. W. Armes. Trustees—E. C. Sessions, W. C. Dodge, W. H. Miller, J. J. Gardiner, Elijah Bigelow, J. Selfridge, J. Shanklin.

INDEPENDENT PRESBYTERIAN.—Corner of Jefferson street, between Eleventh and Twelfth. Organized February, 1869. Rev. L. Hamilton Pastor. Trustees—Prof. Henry Durant, Rev. D. McClure, C. W. Howard, George C. Potter, J. S. Emery, A. J. Coffee, S. B. McKee and John R. Glascock.

FIRST CONGREGATIONAL.—Broadway, between Tenth and Eleventh streets. Organized December, 1860. Rev. Dr. Mooar, Pastor. Deacons—T. B. Bigelow, E. P. Flint, R. E. Cole and T. L. Walker. Trustees—R. E. Cole, E. P. Flint, E. P. Sanford, I. W. Knox, Wm. K. Rowell and H. A. Palmer.

SECOND CONGREGATIONAL.—Oakland Point. S. D. Gray, Pastor. Organized May 31, 1868. Trustees—J. A. Folger, Chairman, H. G. McLean, H. C. Emmons, E. E. Walcott, L. P. Collins.

MISSION CONGREGATIONAL.—Second street, between Broadway and Washington. Rev. John Kimball, Pastor. Organized in 1858. Is under control of the First Congregational.

FIRST BAPTIST.—Corner Fourteenth and Brush streets. Organized in 1854. Rev. B. T. Martin, Pastor. Church Clerk, A. W. Brodt. Deacons—Wm. Watt and G. W. Dam. Trustees—A. L. Warner, G. W. Dam, J. F. Havens, Wm. Watt and A. W. Brodt. Treasurer—B. F. Pendleton.

ST. JOHN'S EPISCOPAL—Corner Grove and Seventh streets. Organized June, 1852. Rev. B. Akerley, Rector; Vestrymen, Rev. B. Akerley President; Gen. R. W. Kirkham, Senior Warden; Samuel Brockhurst James de Fremery, J. N. Olney, R. H Bennett, Junior Warden; C. D. Haven, Secretary and Treasurer.

METHODIST EPISCOPAL.—Corner Washington and Ninth streets. Rev, T. S. Dunn, Pastor. Trustees—M. T. Holcomb, J. Stratton, J. W. Carrick, James C. Stratton and C. H. Bradley.

ST. MARY'S ROMAN CATHOLIC.—Seventh street, between Grove and Jefferson. Rev. Michael King, Pastor; assisted by Fathers Byrne and Sarra. This church is the second of any denomination organized in Oakland. The foundation for a new and spacious edifice has been laid near the present church.

ST. PAUL'S EPISCOPAL.—Corner Twelfth and Webster streets. Rev. M. Williams, temporary Rector. Organized 1871. Vestrymen—Hon. J. A. Stanley, A. I. Gladding, Dr. W. C. Parker, T. J. Hyde, Captain Williams, Mack Webber, J. B. Harmon, R. C. Alden, Walter Laidlaw.

THE MOUNTAIN VIEW CEMETERY.

Several years ago, leading citizens of Oakland, Brooklyn and Alameda townships, secured a suitable location as a burial place for the dead. It comprises about two hundred acres of undulating ground at the foot-hills, about two miles eastwardly from Oakland. The Mountain View Cemetery Association was organized; and, under the operation of the State law, the ground has been dedicated forever to the sacred purposes for which it was obtained. Mr. Fred. Law Olmstead, who laid out Central Park, in New York City, was employed to survey the ground and lay out a plan for the Cemetery. The plan presented by him was adopted. Improvements of a high order have already been made; and the officers of the Association comprise gentlemen whose reputation afford a guarantee that its affairs will be attended to with a view of making the Cemetery all that could be desired.

INSTITUTION FOR THE DEAF AND DUMB AND BLIND.

The State Asylum for the education of the Deaf and Dumb, and the Blind, is located about four miles north of Oakland, on grounds adjoining those of the University. It is one of the most beneficent of our State Institutions, and is exceedingly interesting to visitors who care to see how novel and ingenious modes of instruction, and patient endeavors, are made to overcome the greatest obstacles to mental development. The building, a massive stone edifice, is considered by many to be the finest piece of architecture in the State, and is supplied with all modern improvements for the

comfort and convenience of its inmates, and with all the peculiar apparatus necessary for their instruction. The total cost of buildings, grounds, etc., has been about $200,000—an expenditure which indicates the liberality and thoughtfulness of our people.

The present number of pupils is eighty-five. Fifty-nine are deaf and dumb, and twenty-six are blind. The course of study embraces most of the branches usually taught in our higher academies. Facilities are also offered for the learning of trades. The benefits of the Institution, including board, tuition, and medical attendance, are free to all deaf and dumb or blind persons, between the ages of six, and twenty-one years, who may be residents of the State.

The Board of Directors consists of J. Mora Moss, President; Chas. J. Brenham, Col. John C. Hayes, I. E. Nicholson, M. D., and Col. Harry Linden. The corps of instructors in the deaf-mute department, comprises Amasa Pratt, H. B. Crandall and Henry Frank. In the blind department, C. T. Wilkinson and M. B. Clark. The Principal is Warring Wilkinson, to whom all letters of inquiry, etc., should be addressed.

SOCIETIES.

Live Oak Lodge, No. 61, F. and A. M.—Organized 1865. Officers: T. P. Wales, W. M.; Wm. H. Irwin, S. W.; Henry J. Evers, J. W.; A. J. Baber, S. D.; George Carlton, J. D.; Benj. Akerly, Chaplain; J. E. Whitcher, Treasurer; James Lentell, Secretary; F. Chappellet and Franklin Warner, Stewards; S. Hirshberg, Tyler.

Oakland Lodge, No. 188, F. and A. M.—Organized 1868. Officers: E. H. Pardee, W. M.; W. J. Gurnett, S. W.; W. S. Snook, J. W.; T. W. Bailey, Secretary; M. T. Dusinbury, Treasurer.

Oakland Chapter, No. 26, R. A. M.—Organized in 1860. Officers: Benj. Akerly, High Priest; G. M. Blake, K.; T. P. Wales, S.; J. M. Miner, C. H.; S. Nolan, P. S.; Henry J. Evers, R. A. C.; W. H. Irwin, M. 3d V.; Ernst Jansen, M. 2d V.; Wm. D. Harwood, M. 1st V.; J. E. Whitcher, Treasurer; S. Hirshberg, Secretary; H. E. Hitchcock, Guardian.

Alameda Chapter, No. 36, R. A. M.—Organized 1868. Officers: N. W. Spaulding, High Priest; W. Van Dyke, K.; E. H. Pardee, S.; C. C. Knowles, C. H.; W. J. Gurnett, P. S.

Oakland Lodge, No. 118, I. O. O. F.—Organized 1865. Officers: Geo. H. Fogg, N. G.; S. P. Knight, V. G.; R. Dalziel, R. S.; P. Mathews, P. S.; C. Barlow, Treasurer.

University Lodge, No. 144, I. O. O. F.—Organized 1868. Officers: C. G. Reed, N. G.; J. W. Thurman, V. G.; Thomas Bell, R. S.; J. V. B. Goodrich, T.; Ed. Surryhne, R. S. N. G.; H. S. Yarrington, L. S. N. G.; J. P. Raymond, R. S. V. G.; J. W. Wolf, L. S. V. G.; Geo. E. Farwell, I. G.; E. G. Jones, O. G.

ALAMEDA DEGREE LODGE, No. 5.—Organized 1869. Officers: W. J. Gurnett, N. G.; J. Barrett, V. G.; S. H. Goddard, Secretary; Geo. H. Fogg, Treasurer.

ODD FELLOWS' HALL ASSOCIATION.—Incorporated 1869. J. E. Marchand, President; J. H. Seymour, J. L. Browne, W. L. McKay, W. J. Gurnett, W. Bartling and Joseph Becht, Directors. The capital stock is about $7,000, and is held by members of the Association.

ALAMEDA STAMM, No. 113, I. O. R. M.—Organized 1867. Officers: W. Jordan, O. Ch.; Henry Kornahrens, U. Ch.; P. Ferman, R. S.; A. Koop, Treasurer; A. Eisenbach, F. Secretary.

CHEROKEE TRIBE, No. 127, IMPROVED ORDER OF RED MEN.—Organized 1869. Officers: H. Nagle, S.; A. T. Potter, S. S.; Wm. Ballantyne, G. S.; W. T. Myles, K. of W.; J. C. Plunket, C. of R.

ATHENS LODGE, I. O. G. T.—Organized 1867. Officers: G. M. Blake, W. C. T.; S. Campbell, P. W. C. T.; Miss Irwin, W. V. T.; T. Bell, W. S.; A. B. Brower, W. F. S.

TURN VEREIN—Organized 1866. Officers: D. Vogt, President; Wm. Hummeltenberg, Vice-President; Henry Sohst, First Secretary; George Bundat, Second Secretary; H. Heyer, Treasurer; Wm. Koch, Librarian; G. Kraft, First Leader; J. Nitman, Second Leader.

OAKLAND BENEVOLENT SOCIETY.—Organized 1869. Officers: Dr. R. E. Cole, President; F. S. Page, Secretary; Dr. B. F. Pendleton, Treasurer; I. W. Knox, Rev. J. E. Benton, and G. W. Armes, Trustees.

KNIGHTS OF PYTHIAS.—Organized 1870. Officers: R. Swarbrick, V. P.; Charles A. Perkins, W. C.; D. B. Bankhead, V. C.; Wm. Parish, G.; Samuel Bailey, R. S.; Charles Parry, F. S.; F. W. Butler, B.; Wm. Myles, I. G.; E. G. Jones, O. G.

OAKLAND HEBREW BENEVOLENT SOCIETY.—Organized 1862. Officers; Jacob Letter, President; Henry Ash, Vice President; S. Beal, Treasurer; S. Hirshberg, Secretary; N. Rosenberg, J. Alexander, L. Greenbaum Trustees.

ST. JOSEPH'S BENEVOLENT SOCIETY. — Organized 1867. Officers: John Kearney, President; P. R. Sheehan, Vice-President; John Carry, Secretary; Patrick Scully, Treasurer; Thomas Dagnan, Clerk; Dr. S. Belden, Physician.

ANCIENT SONS OF HIBERNIA.—Organized July 7, 1870. Officers: James McGuire, President; J. O'Connell, Vice-President; S. D. Cronin, Cor. Secretary; John Teague, F. Secretary; E. Fitzgerald, Treasurer. The Society numbers one hundred members.

MILITARY.

OAKLAND GUARD.—Organized 1861. Officers: Alfred Burrell, Captain; John C. Orr, First Lieutenant; E. R. Turner, Second Lieutenant; H. Maloon, Orderly Sergeant.

GRENADIER GUARD.—Organized 1870. Officers: J. Callahan, Caption; Carr, First Lieutenant; A. Herrin, Second Lieutenant; S. Cronin, Orderly Sergeant.

LIVE OAK ZOUAVES.—Organized 1870. Officers: E. J. Kelly, Captain; Thomas Treanor, First Lieutenant; John F. Teague, Second Lieutenant; James Marchand, Orderly Sergeant.

OAKLAND BANK OF SAVINGS.

Organized, August 27, 1867. Capital stock $150,000. Capital increased March 30, 1869, to $300,000.

OFFICERS.

P. S. WILCOX, ... President.
J. L. BROWNE, ... Cashier.

BOARD OF DIRECTORS.

P. S. Wilcox, E. M. Hall, Samuel Merritt, T. B. Bigelow, Walter Blair.

REPORT JANUARY 1, 1871.

LIABILITIES.	DR.	CR.
Capital and Reserve Fund	$ 86,850	
Due Depositors, etc	197,164 53	
Due Dividend No. 7	14,000	
ASSETTS.		
Office Furniture		$ 2,436 58
Bonds, Currency, and Stamps		19,696 49
Loans and Over Drafts		217,951 82
Cash in Vaults, San Francisco and New York City		57,929 64
Total	$298,014 53	$298,014 53

Number of Depositors 796. Dividends have always been one per cent. per month on first-class deposits, and at the rate of ten per cent. per annum on second-class—paid in July and January, semi annually.

UNION SAVINGS BANK.

Incorporated, July 1, 1869; with a capital stock of $300,000, which was increased July 1, 1870, to $500,000.

OFFICERS.

A. C. HENRY, ... President.
J. WEST MARTIN, ... Vice-President.
H. A. PALMER, ... Cashier and Secretary.

THE LOCAL RAILROAD AND FERRY.

The location of the road and wharf is shown on our map of Oakland, and a description of the wharf and slip may be found in the article quoted from the [illegible] page.

The Company is about constructing a large shed on the southerly side of the slip, for the exclusive accommodation of the local passenger trains.

The local track is of heavy, "fish joint" iron, and runs up the wharf between the through-track and the carriage-way.

A STEAM FIRE ENGINE.

As a guard against fire, an elegant locomotive—the White Eagle—with a steam-pump attachment, a tank-car, and coils of hose,—is kept constantly in readiness to fly to this point or that, with lightning speed.

THE FERRY SLIP

At San Francisco, is near the foot of Pacific street, but the improvements about it are inferior. Provision has been made for the safety of passengers, but the arrangements for their comfort are not suggestive of the civilization of 1871. We may assume the reason to be that the railroad company does not regard the location as a permanent one.

Public considerations suggest that the Board of State Harbor Commissioners should assign to the Company a place, near the foot of Market street, with guarantees of permanency which would justify the construction of creditable improvements for the accommodation, not only of local travelers, but of the thousands who visit us from abroad. We say the foot of Market street, because the system of streets in San Francisco admits of no other proper location. From that point, and that alone, the street railroads could be made to radiate to every part of San Francisco, and equalize both convenience to travelers, and the benefits resulting to property.

RAILROAD AVENUE.

Returning to Oakland, we must admit that Railroad Avenue, through which the local road runs, is one of the least attractive streets in our City. Nature has done her part, but the railroad company and the property-holders have not done theirs. There are six stations between the Bay and the Estuary, with miserable sheds at five, and not a respectable platform at one. The street is not macadamized; only a few patches of side-walk are made; and travelers from San Francisco, or elsewhere, are not favorably impressed with that portion of Oakland, nor with the exertion of climbing and jumping, to which they are often subjected.

While criticising deficiencies, we must "Render unto Cæsar the things that are Cæsar's," and credit the railroad company where credit is due. Commuters are charged but three dollars per month.

THE BOAT AND CAR ACCOMMODATIONS

Are not surpassed on any similar line of travel. The steamer *El Capitan* which performs the ferry service, is about one thousand tons burden, and is a staunch, powerful, and elegantly constructed boat. Moreover, the

have laid their mains from Oakland, for the purpose of supplying the town with water, and hydrants for the use of the Fire Department have been placed at various points. The mains of the Oakland Gas Light Company have also been carried into the town.

The School Department is well organized and conducted.

The town has four churches, viz: one Presbyterian, Rev. Oliver Hemstreet; one Baptist, Rev. T. C. Jameson; St. Anthony's Catholic Church, under the supervision of Rev. Father King; and the Episcopal Church, Rev. Mr. Wilbur, Rector.

The situation of Brooklyn is somewhat higher than that of Oakland, and the absence of oaks which add so much to the charms of the latter place, is compensated in a measure by the picturesque scenery on every side. Its situation on the Estuary of San Antonio, with the railroads running along the banks, gives it great prospective importance as a location for manufactures, and already there are several manufacturing establishments in successful operation.

At several places near the Estuary, overflowing artesian wells have been obtained by sinking one hundred and fifty feet.

ALAMEDA, AND THE WEBSTER STREET BRIDGE.

The beautifully situated and rapidly growing town of Alameda, distant about two miles from Oakland, is being brought into direct communication with this city by the erection of a draw-bridge, spanning San Antonio creek, from the foot of Webster street. From the bridge, a substantial roadway is being constructed over the marsh land, which is nearly a mile in breadth. The progress of the town cannot fail to be much accelerated by the completion of this important thoroughfare; and the advantages to be derived therefrom by the people of both places cannot be too highly estimated.

The peninsula upon which the town is located, is about three and a half miles long by one mile wide, comprising an area of about 2,200 acres of remarkably fertile soil, ornamented by a profusion of oaks. An abundance of excellent water is obtainable within a few feet of the surface.

Nature has made the Encinal a charming resort for people of rural tastes; and during the summer months its groves and parks are visited by thousands from San Francisco and neighboring places. The township contains about five hundred families, most of whom own the property upon which they reside. In Alameda there are many delightful residences, including that of his Excellency, the Governor of California.

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attention and forethought which insures punctuality and safety, is not wanting. The local Superintendent is accomplished in his profession, and unremitting in his watchfulness. The following statistics of travel and casualties, attest his efficiency, and demonstrate

THE SAFETY OF TRAVELING.

During the year 1870, the cars and boat made twelve trips per day, each way. The average number of passengers to each trip was one hundred and eighty, making four thousand three hundred and twenty passengers per day, or over one million and a half for the year — more than ten times the population of San Francisco. In this vast movement of passengers, *not one fatal accident occurred.* Only two persons were injured, and the Company was not accused of responsibility in either case.

THE INCREASE OF TRAVEL

Is perceptible from month to month, and it is understood that the Company will soon multiply the trips. Indeed, it is quite evident that the time is not distant when crossings will be made every ten minutes; and persons seeking homesteads can safely depend upon realizing this prediction.

THE ESTUARY ROUTE,

Or "Creek Route," as it is commonly called, is used, at present, only by boats and vessels carrying freight. The importance of the Estuary is alluded to elsewhere. Its improvement is a question of not much time; and those who rely upon seeing first-class passenger boats navigating its waters at an early day, will not be disappointed.

A RECREATIVE TRIP.

Thousands of people in San Francisco have never visited this side of the bay, and are in unblissful ignorance of the attractions which it offers, and of the recreative and invigorating nature of the trips to, and from Oakland. The street car trips, from the business portion of San Francisco to, or from any point in that city, where residence property cost even *double* that of residence property in Oakland, consume more time than the trips between San Francisco and Oakland; and the monotony and discomfort of street car travel make the former appear twice as long as the latter.

ALAMEDA COUNTY STATISTICS.

The following report of the agricultural products, improvements and general industries of the county, for 1870, is from the books of the County Assessor, Edwin Hunt:

AGRICULTURAL PRODUCTS, WINES AND LIQUORS.

Land inclosed, acres	91,328	Potatoes, acres	1,013
Land cultivated, acres	117,763	Potatoes, bushels	82,640
Wheat, acres	65,991	Sweet Potatoes, acres	none
Wheat, bushels	1,017,031	Sweet Potatoes, bushels	none
Barley, acres	36,030	Onions, acres	293
Barley, bushels	505,670	Onions, bushels	25,108
Oats, acres	3,240	Hay, acres	7,465
Oats, bushels	98,460	Hay, tons	12,475
Rye, acres	2,510	Flax, acres	375
Rye, bushels	137,000	Flax, pounds	68,600
Corn, acres	562	Hops, acres	5
Corn, bushels	13,180	Hops, pounds	1,870
Buckwheat, acres	17	Tobacco, acres	none
Buckwheat, bushels	20	Tobacco, pounds	none
Peas, acres	166	Beets, tons	1,295
Peas, bushels	4,038	Turnips, tons	32
Peanuts, acres	none	Pumpkins and Squashes, tons	1,280
Peanuts, pounds	none	Butter, pounds	75,355
Beans, acres	599	Cheese, pounds	4,218
Beans, bushels	5,975	Wool, pounds	215,775
Castor Beans, acres	none	Honey, pounds	4,335
Castor Beans, pounds	none		

TREES AND VINES.

Apple Trees	86,615	Olive Trees	251
Peach Trees	13,595	Prune Trees	4,120
Pear Trees	35,568	Mulberry Trees	120
Plum Trees	21,264	Almond Trees	9,249
Cherry Trees	28,788	Walnut Trees	1,552
Nectarine Trees	962	Goosberry	43,739
Quince Trees	1,992	Raspberry	725,882
Apricot Trees	3,566	Strawberry Vines	5,758,860
Fig Trees	1,015	Grape Vines	136,148
Lemon Trees	38	Blackberry Bushes	32,200
Orange Trees	23		

WINES AND LIQUORS.

Wines, gallons	3,080	Brandy, gallons	500

LIVE STOCK.

Horses	6,525	cluding Stock cattle	16,002
Mules	733	Sheep	45,276
Asses	11	Hogs	34,773
Cows	4,063	Chickens	57,051
Calves	2,462	Turkeys	3,791
Beef Cattle	1,881	Geese	971
Oxen	327	Ducks	7,042
Total number of Cattle in-		Hives of Bees	318

IMPROVEMENTS.

Grist Mills	7	Acres of Wheat sown in 1870.	58,750
Steam Power	5	Acres of Barley sown in 1870.	41,075
Run of Stone	24	Assessed Value of Real Estate	8,084,150
Water Power	2	Assessed Value of Improv'nts.	1,532,560
Run of Stone	3	Assessed Value Personal Pr'ty	2,164,671
Barrels of Flour made	36,470	Total Assessed Value Pr'ty..	11,786,381
Bushels of Corn ground	21,496	Estimated Total Population..	24,000
Railroads	4	Registered Voters	4,200
Miles in Length	90¼	Poll Tax Collected	7,402
Land Cultivated in 1870, acres.	112,750		

COMPARATIVE INCREASE OF POPULATION IN VARIOUS CITIES.

CITIES.	Population, 1860.....	Population, 1870.....	Per cent. increase..	CITIES.	Population, 1860.	Population, 1870.	Per cent. increare..
St. Louis....	212,418	312,903	47	Marysville..	4,740	4,375	
Cincinnati...	161,044	216,239	34	Chico.....	1,482	3,718	150
Pittsburg....	49,217	86,235	75	Petaluma...	1,505	2,868	90
Chicago.....	109,260	298,983	174	Sonora.....	1,960	2,498	27
San Francisco	56,802	150,351	164	San Diego..	731	2,400	228
Sacramento..	13,785	16,298	18	Columbia...	2,062	2,200	7
OAKLAND....	1,553	11,104	615	Benicia.....	1,470	1,660	13
Stockton.....	3,670	10,033	173	Alameda....	460	1,557	238
San Jose.....	4,579	9,091	99	Monterey...	1,653	1,112	
Grass Valley.	3,740	7,066	88	Red Bluff...	1,391	920	
Vallejo.....	1,431	6,392	346	Visalia.....	548	913	66
Los Angeles.	4,385	5,514	26	San Rafael..	636	831	31